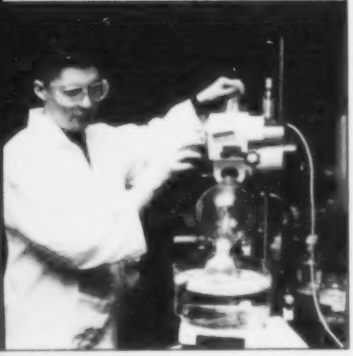
GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Department of Education
Honourable Tom Hedderson, Minister



Foundation for Success

White Paper on Public Post-Secondary Education
2005

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Foundation for Success

White Paper on Public Post-Secondary Education

Government of Newfoundland and Labrador
2005

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Foreword

Our students are our future and they deserve every opportunity to succeed. As the pace of change accelerates, so too does the need to ensure that all Newfoundlanders and Labradorians are ready to compete and participate provincially, nationally and internationally. Our ability to master the process of change in all areas of society depends critically upon Memorial University and College of the North Atlantic.

There is every reason to be proud of the University and College. These institutions have extended skills and knowledge to thousands of our citizens and continue to do so, year after year. Post-secondary attainment rates have risen dramatically from 32% in 1981 to 52% in 2001.

Our commitment to public post-secondary education – as a people and as Government – must continue. At this time, it is crucial that education be emphasized to foster a culture of learning.

A system has to be grown that is truly equitable for all. While attending post-secondary studies is an affordable and reasonable expectation for many, for others, post-secondary education is beyond their reach.

Actions need to be taken to support the social and economic development of this Province. Consequently, we have examined all the facets of our public post-secondary system to ensure it is strong, vibrant and positioned to strengthen the employment prospects of our graduates, while preserving the principles of quality, accessibility and affordability.

I wish to thank our Commissioner, Dr. Wayne Ludlow, and his Advisor, Mr. Cyril Farrell, as well as Mr. Robert Pitt for his editorial assistance with this White Paper. I also extend my sincere thanks to the many individuals, educators, organizations and community groups who contributed to our consultation process. As *Foundation for Success* attests, we have listened carefully to the concerns expressed and the advice received, and the whole process has benefited.

Preparing this White Paper has required decision-making that is necessary to enable the growth of our one university – one college system. We are making a strategic investment in these systems to open up access to post-secondary education regardless of individual circumstances, to support research opportunities, and to allow the development of a provincial system that is nationally and internationally competitive. Our future will be built upon this foundation.

Tom Hedderson
Minister of Education

Executive Summary

Post-secondary education is a valuable investment ...

The people of this Province have long recognized that an educated population is the strongest foundation upon which to build our future. As Dr. Leslie Harris, former President of Memorial, stated: "the creation of the University ... was the most significant single event" in the history of Newfoundland and Labrador.[1] Together with College of the North Atlantic, it has provided far-reaching benefits to all the people of our Province. Sustained economic growth and our capacity to meet future provincial and regional labour-market needs will depend on our ability to maximize the skills and creativity of all our people.

and we have reason to be proud of our graduates, our university and our college

The number of people graduating from our post-secondary education system has increased by 20% in the last two decades. More international students are studying here. Our research capacity is strong and world-class. Memorial accounts for more than 60% of all research and development conducted in the Province and our college is building new opportunities and innovations at the community, provincial and national levels.

... but challenges remain.

- The changing education and training needs of our students require a responsive system.
- A post-secondary education is still beyond the reach of many.
- There is a need for continued investment in students, teaching and research at both Memorial University and College of the North Atlantic.
- Geography, demographics and the need for a comprehensive mix of programming challenge accessibility and affordability.

We have been investing in post-secondary education and adapting programming to the benefit of our students and our Province. Our support of students, institutions, industry and community partners has ensured that our graduates are prepared for the opportunities available to them. They continue to be our greatest success story and our greatest ambassadors, bringing the best of Newfoundland and Labrador to the world. However, to continue to achieve excellence, more investment is needed. The strategies we are putting forward to sustain and advance our one university - one college public system will

- strengthen the base of our post-secondary education system;
- improve the capacity of our university and our college;
- provide greater support services to our students;

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[1] Convocation Address, 26 May 1999.

- maintain adequate and stable funding for our students and our institutions;
- improve accountability and collaboration within and between our post-secondary institutions.

Strengthening the Base

To strengthen our system and to ensure its quality, we must promote and raise the profile of adult learning. We will strengthen the base through initiatives that enhance delivery and broaden access to under-represented groups by

- fostering a culture of adult learning;
- enhancing post-secondary capacity for Aboriginal students;
- supporting the participation of women;
- enhancing rural participation;
- creating more pathways for adult academic upgrading;
- improving apprenticeship training.

Improving System Capacity

Strategies to engage more students in our institutions must be accompanied by complementary changes in the range of program offerings and their availability. Our system is being challenged to meet demands for increased capacity and the needs of a diverse range of learners. We will improve post-secondary capacity by

- expanding the role of Sir Wilfred Grenfell College;
- reviewing the role of the Marine Institute within the context of our public post-secondary strategic plan;
- reviewing the delivery of health-care education;
- improving the delivery of distance education.

Helping Students

Students entering the post-secondary system have many different characteristics, such as age and family background, and differing skills, abilities and needs. It is essential that the Province provide an environment in which all can learn and develop. To achieve this, we will help students complete their post-secondary education by

- enhancing student recruitment and counseling;
- improving coordination of student services;
- enhancing affordability by freezing tuition for domestic students;
- establishing a student services advisory committee.

Maintaining Stable Funding

A dynamic and progressive system requires stable government funding and the ability to leverage funds from other sources. Recognizing this, we will provide adequate and stable funding, and support our institutions in their efforts to attract other investors by

- increasing provincial operating grants to Memorial University and College of the North Atlantic;
- establishing an equipment fund for College of the North Atlantic;
- providing matching funds for an infrastructure fund-raising campaign;
- providing institutions with matching provincial funds for research;
- augmenting the provincial student loan and grant programs.

Enhancing Governance

An integrated governance approach where all parts of the system work together is essential to achieve our true social and economic potential. Improved coordination within and between our institutions will be achieved by

- legislating greater connectedness and accountability through a renewed Council on Higher Education;
- legislating joint appointments to the Boards of Memorial University and College of the North Atlantic;
- implementing performance contracts with our institutions.

Knowledge, skills and creativity achieved through higher education and research have been major factors in our Province's successes. Because a strong post-secondary system is vital to individual and community development, the directions described in this White Paper will strengthen the link between education and social and economic growth.

As Memorial University and College of the North Atlantic have grown to meet students' needs, they have also emerged as important contributors to our Province's economy and its social and cultural life. These institutions are a gateway to opportunity and fulfilment for people from all backgrounds and it is crucial that they continue to make real and sustained improvements that allow access for all our citizens.

For our University and College to meet our expectations, they must have financial certainty in both the short and long term. To strengthen our system further, we must enhance collaboration between them and their links with communities and industries.

We must also continue to make strong commitments to our post-secondary students: they are the cornerstone on which this Province's future rests. The directions outlined in our *Foundation for Success* are designed to ensure that we achieve these goals.

1. Purpose and Process

1.1. Purpose

In Newfoundland and Labrador, education is regarded as a mainstay of our society. It strengthens and advances democracy, human rights, economic and cultural development and prosperity. Post-secondary education (education and training beyond high school), in particular, provides us with the means of improving our individual and collective well-being.

Today, our post-secondary education system and students are facing unprecedented social and economic challenges, and we must be prepared to make the changes needed to meet them. Understanding these challenges and deciding on the best responses require us to assess the factors affecting our system, recognize our strengths and weaknesses, and identify practical, equitable and sustainable solutions. This is what our White Paper process is intended to achieve.

A primary task of this process was to examine the effectiveness, affordability and accessibility of our two public post-secondary institutions, Memorial University and College of the North Atlantic, and determine whether they are fulfilling the educational needs of all our people. A further aim was to consider whether our institutions are achieving their potential to attract investment and support economic development opportunities for our Province.

A White Paper is a document that presents a government's official policy and plans for a particular subject area, usually as the result of study, investigation and consultation[2]. This White Paper sets out Government's plans for renewing our public post-secondary education system to prepare Newfoundlanders and Labradorians for the future. It is based on a significant amount of research, consultation and careful deliberation.

1.2. White Paper Consultation Process

Government understands that listening to the concerns and needs of our people, and drawing on their experience and expertise, are fundamental to policy development. Government thus appointed Dr. Wayne Ludlow as Commissioner and Mr. Cyril Farrell as Advisor to the Commissioner with respect to College of the North Atlantic, to conduct consultations across the Province during the summer and early Fall of 2004. They met with representatives from student groups, Memorial University, College of the North Atlantic, business and industry, and the public at large. Advice and guidance were sought on how best to make our Province's public post-secondary education system stronger, more vibrant and better positioned to meet our current and future needs. In addition to the consultations, more than one hundred written submissions were received. The results of these consultations and submissions are contained in the document *What We Heard* (see http://www.ed.gov.nl.ca/edu/whitepaper/index.htm).

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[2] It is called a "white paper" from the British government practice of thus distinguishing shorter position papers from the lengthier "Blue Books" detailing findings and prospective legislation.

The views presented, while varied, strongly affirm the value of an affordable, accessible and high-quality post-secondary education system. People in this Province are proud of our excellence in research, and of our institutional work in international development. They believe that the programs offered are relevant to their needs and flexible in responding to students' aspirations and labour-market changes. A comprehensive system consisting of one university and one college best suits the needs of this Province.

Our people appreciate that post-secondary education in Newfoundland and Labrador is affordable and accessible. Those in rural areas recognize that there is a College campus within reach of most people and that it supports community life in many ways. People also value the efforts of Memorial University and College of the North Atlantic to maintain a presence in rural areas of the Province and to contribute to their cultural, social and economic development. Further, we heard that people appreciate that our system offers programming choices and options for earning degrees or diplomas. They value the transparency of our institutions' operations and the fact that so much of what they do is accessible to the public.

The consultation process also confirmed the need for our system to respond to change effectively and to continue to evolve. We heard that there is a need to enhance collaboration between Memorial University and College of the North Atlantic and a continued need to engage in responsive and flexible program development to meet changing labour-market demands. We need to develop a true *system* of post-secondary education in this Province, one that is based on stable and predictable funding and able to respond quickly to regional needs.

The people of this Province feel that we can do a better job attracting youth and others not participating in post-secondary education, and helping them make the right career choices. They expressed a need for more and better literacy programs and greater access to diverse and relevant educational opportunities.

The recommendations brought to Government during the consultations underscore the importance of the principles of quality, accessibility and affordability. These are the prerequisites of a world-class post-secondary education system producing graduates who are prepared to compete with the very best.

2. Building on Principles

2.1. Fostering a Learning Culture

To meet our challenges and address the needs of our educational system and its clients, today and for the future, we need to foster a true "learning culture". Within a learning culture, society recognizes the value of education for all citizens throughout their lives, and strives to create an environment where a responsive, high-quality education is affordable, equitable and accessible by all.

Newfoundlanders and Labradorians already place a high value on post-secondary education. Our university participation rate is higher than the national average and, at the college level, participation is the highest in Atlantic Canada.

In a world shaped by information technologies and global economies, post-secondary education offers many opportunities for individuals to participate in community life and achieve economic success. Our understanding of this reality is reflected in public opinion surveys, broader post-secondary aspirations and increased attendance.

To build for our future, this Government envisions a post-secondary system - comprising one university and one college - that addresses lifelong needs, promotes equity, advances intellectual rigour, encourages creativity and places students at its centre.

> **There is little debate that post-secondary education is now a mandatory qualification for fulfilling and sustaining work. What remains is the vital question of how to expand access to post-secondary education in the most equitable manner.**
>
> **- Canadian Federation of Students**
> **White Paper Submission**

2.2. Our Principles

A strong foundation is built on a solid base. Important elements of that base are the principles that guide our vision for post-secondary education in this Province. The Government of Newfoundland and Labrador is committed to a system of public post-secondary education which is *excellent, affordable, accessible, collaborative, sustainable* and *accountable*.

2.2.1. Excellent

The benefits of excellence in our post-secondary system are far-reaching, both for ensuring the very best education and for maintaining the recognition and reputation of our programs nationally and internationally. Government is committed to improving our understanding of where and how good teaching and learning take place, taking steps to ensure that standards are high and continually improved, and ensuring that best practices are shared effectively.

> **Our University continues to be relevant in providing affordable access to quality education for all Newfoundlanders and Labradorians ... within the context of a Province that is competitive in a global environment ... . To accomplish this our University must be valued on the national and international stages and this can only be achieved by continuing investment in quality research activities, quality faculty and quality facilities.**
>
> **- J.J. Hillyard, Vice President , Bank of Montreal, Newfoundland and Labrador**
> **White Paper Submission**

2.2.2. Affordable

Although participation in post-secondary education requires a considerable investment, graduates usually enjoy higher employment rates and better wages. This makes the cost worth the investment.

Across the country and within the Province, however, opportunities for higher education remain unevenly and often unfairly distributed, particularly for students who must move long distances to attend classes. In many cases, personal and family financial resources still play a major role in determining who can participate.

Government has tried to ensure equitable access for all and to offset the financial burden of post-secondary education through its initiatives. Debt reduction grants, based on both academic progression and debt loads, have ensured that those who need to borrow more money because of low family incomes receive the greatest amount of debt relief. We are committed to ensuring that this program continues.

2.2.3. Accessible

Newfoundland and Labrador's economic and social growth depend on a population that possesses the knowledge and skills necessary to succeed in an evolving labour market. The pace of both social and technological change means that education, including post-secondary education, must be a lifelong pursuit. Today's young adults will need to return to learning - full-time or part-time - more than once during their lifetimes to refresh their knowledge, upgrade their skills and remain employable. This means that education should be available to all of us, throughout our lives.

2.2.4. Collaborative

Strong links between education and employment can be forged by creating partnerships between post-secondary institutions and business and labour in key industry sectors. This helps to forecast skills requirements more accurately, and to plan ways to meet them. An integrated system-wide approach will be essential to address present and future skills requirements, considering our small population and economy. Both Memorial University and College of the North Atlantic have made considerable progress in establishing strategic partnerships with business, industry, other educational institutions and each other. These initiatives need to be maintained and strengthened.

> **To this point in its history, the province has practiced an aggregative approach to education. If the available opportunities are to be seized, this approach has to be replaced with an integrative one where the educational partners work willingly together.**
>
> **- Dr. Evan Simpson**
>
> **Integrated Education for the Progress of Newfoundland and Labrador [3]**

2.2.5. Sustainable

Dynamic, evolving and comprehensive post-secondary institutions are required for the future development of a progressive, economically sound province. In the context of our present challenges, creating an affordable post-secondary education system is essential to ensure that public policy initiatives can be supported and that our institutions can continue to develop their roles within the larger community. It is also important that financial support for our institutions is appropriate and can be sustained over the long term.

2.2.6. Accountable

The increasing pace of change constantly requires us to explore strategies for improving the way our public post-secondary education system operates and delivers services. Government and our educational institutions monitor and report results for post-secondary education. We believe that integrated planning among Government, Memorial University and College of the North Atlantic, with a clear understanding of the roles and responsibilities of each party, is essential for effective accountability.

Our provincial accountability framework is designed to build on the achievements of our public institutions in order to satisfy the growing demand for greater efficiency, effectiveness and transparency in the delivery of public services. We are committed to an integrated and balanced approach to setting, communicating, measuring and achieving our post-secondary education goals and objectives.

> **Accountability means that the public investment in post-secondary education is used to further public policy objectives.**
>
> **- Dr. Paul Wilson, Sir Wilfred Grenfell College**
>
> **White Paper Submission**

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[3] Simpson, Evan, *Integrated Education for the Progress of Newfoundland and Labrador*, Report to the Department of Education, 2004.

3. Education in Society

The people of Newfoundland and Labrador have long recognized that an educated population is the strongest foundation upon which to build our future. Since 1925, when Memorial College was opened, and through the construction of our first vocational schools in 1963 and the tremendous expansion of both institutions since those times, we have worked to ensure that our system of public post-secondary education supports the social and economic development of this Province.

The connection between education and social and economic growth is well established. A strong post-secondary system is vital to individual and community development and innovation. Throughout the Province, creativity, skills and research developed through higher education have been major contributors to our success in creating jobs and in achieving prosperity. In recent decades, we have made considerable progress in improving the educational levels of our population, particularly our younger people.

Knowledge of demographic and socioeconomic trends is very important for educational planning and decision-making. Such factors, or indicators, while beyond the control of the education system, significantly influence its structure and operation as well as its overall outcomes. For example, changes in the size and age structure of the population have a direct impact upon the demand for, and delivery of, educational services.

Indicators of graduate performance and attainment are some of the best measures of an education system's success in achieving its goals. These indicators allow policy-makers, administrators and educators to highlight successes and to focus on areas where performance remains below expectations.

This chapter describes various aspects of our present situation and discusses some of the challenges we must meet as we move forward.

3.1. Education and Growth

3.1.1. Participation Rates

Newfoundland and Labrador's participation in the university sector is comparable to some of the larger Canadian provinces. This is a good indicator of the value we place on post-secondary education. In 2002/03, the Province's university participation rate for 18 to 21 year-olds was 24.2%, well above the Canadian rate of 19.7%. Our participation rate has increased nearly twice as fast as the national rate (6.1 versus 3.2 percentage points). Our public college participation rate increased 5.7 percentage points between 1990/91 and 2002/03, to 11%, exceeding the national average increase of 2 percentage points over the same period. Women had a higher participation rate than men, mainly at the university level.

> **Higher education is one of this small province's largest industries.**
> **- Dr. Evan Simpson**
> **Integrated Education for the Progress of Newfoundland and Labrador**

3.1.2. Educational Attainment

Educational attainment levels have also been increasing in recent years. The proportion of the Province's population aged 25-64 who have completed post-secondary education increased from 39% in 1991 to 49% in 2001[4]. A slightly higher percentage of males (50.3%) than females (48%) had completed post-secondary. Similarly, more high school students are choosing career paths that include the completion of high school and the pursuit of post-secondary education. High school graduation rates have increased steadily to approximately 80% in recent years, and in 2001, 71% of the Province's new high school graduates enrolled in college or university compared to 65% in 1995.

Figure 3.1 presents Census 2001 data on the educational attainment of the Province's population aged 25-54, the prime years for participation in the labour force.

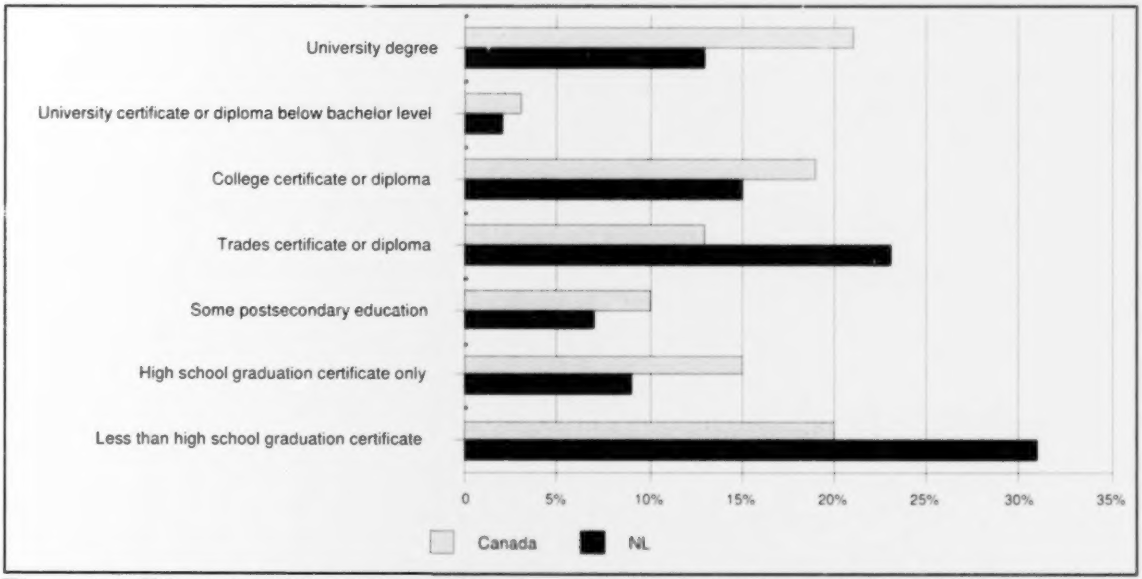

Figure 3.1: Educational Attainment, Newfoundland & Labrador and Canada, Ages 25 to 54
Source: Statistics Canada, Census 2001

Compared to Canadian averages, there are several differences in our Province's attainment levels. In Newfoundland and Labrador

- 13% have a university degree compared to 21% for Canada overall;
- 40% have a certificate or diploma compared to 35% of Canadians;

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[4] Census 2001

- 23% have a trade's certificate or diploma compared to 13% of Canadians;
- 31% have less than a high school education compared to 20% of Canadians.

There are also differences in attainment levels between urban and rural areas of this Province. In 2001, in urban areas, 19% of the population aged 25-54 had a university degree, while 37% had a high school certificate or less as their highest attainment level. In rural areas, just 7% held a university degree and 56% had a high school certificate or less.

The public has a strong appreciation of the value of post-secondary education in today's labour market. We recognize that if the Province is to maximize its potential for economic growth, it must build on the skills and abilities of all our citizens - our youth and adults - including those who are experiencing difficulty acquiring the requisite skills and education, and those who live in remote areas of the Province. Despite this recognition, it is often more difficult for adults to participate than for younger people. A fundamental shift must occur from a "once in a lifetime" concept of education to a process of continuous personal and professional development. In order for this to happen, our post-secondary system must be flexible enough to meet the needs of all our citizens no matter where they live in the Province and no matter what their stage in life.

> **Education needs to be placed in the context of life long learning and also give credence to informal learning and the inclusion of persons with life experience and expertise.**
>
> **- Rural Secretariat, Cormack-Grenfell Region**
> **White Paper Submission**

3.1.3. Income Support and Educational Attainment of Young Adults

In 2003, one-quarter (about 11,500) of the approximately 45,300 adults accessing Income Support were between the ages of 18 and 30. A significant number of these young adults had low educational attainment levels, with 53% reporting less than high school completion and 34% reporting high school completion only. While the education levels of new income support entrants in 2003 showed improvement over previous years, from an employment perspective they continue to be hampered. HRDC/Statistics Canada observes, "First they have fewer education credentials than those who do pursue a post-secondary education; and second, they enter the labour market with weaker skills on a number of dimensions".[5]

3.1.4. Labour-Force Participation

The labour-force participation rate is that portion of the population actively participating in the workforce through employment or by seeking employment, expressed as a percentage of the population. In 2004, the labour-force participation rate for 25 to 54 year-olds in Newfoundland and Labrador was 79%, compared to 86.6% for their Canadian counterparts. However, as shown in Figure 3.2, the difference in participation rates is not as great at the higher levels of educational attainment. At the university level, the participation rates are similar for the Province and Canada, 89.1% and 90.4% respectively. High rates are also evident at the certificate or diploma level. The lowest participation rates are at the lowest attainment levels. For Newfoundlanders and Labradorians at the lowest level of education, 0 to eight years in school, the participation rate is 50.8% compared to 61.2% nationally. Overall, the data for both the Province and Canada confirm that as educational attainment levels increase, participation in the labour force increases.

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[5] Human Resources Development Canada and Statistics Canada, *At a Crossroads: First Results for the 18-20-year-old cohort of the Youth in Transition Survey*, January 2002.

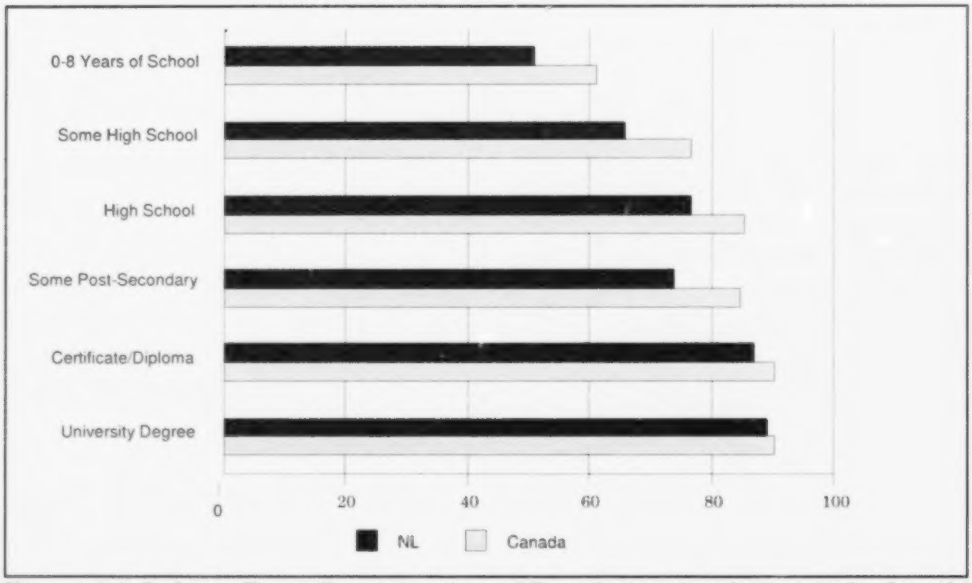

Figure 3.2: Labour-Force Participation of Population Aged 25 to 54 by Level of Educational Attainment, Newfoundland and Labrador and Canada 2004
Source: Statistics Canada, Labour Force Survey, 2004

3.1.5. Workforce

Most graduates from the Province's post-secondary institutions quickly find employment in the labour market. Approximately 75% of graduates from most programs find their first full-time job before graduation or within three months of graduating. Further, more of our post-secondary graduates are choosing to remain in the Province after graduation. Out-migration of Memorial University students dropped from 28% of graduates in 2000 to 22% in 2002. Similarly, the out-migration of college graduates fell from 20% to 14% during the same period. This is encouraging news for our economy and our future.

> **As many as 86.5% of our students stay in the region initially after leaving the College and contribute to the local economy.**
>
> **- College of the North Atlantic**
> **White Paper Submission**

Memorial University and College of the North Atlantic are playing a critical role in developing our private- and public-sector workforce. For example, almost three-quarters of the Province's fully-licenced physicians are graduates of Memorial's Faculty of Medicine or have an attachment to the school through their residency training. An even higher percentage of this Province's nurses completed their education here. Without these connections, our hospitals, schools and other public services would be weakened.

Nevertheless, within industry, there are perceptions that some current post-secondary programs, particularly in trades-related areas, are inconsistent with industry's needs. To close productivity gaps, we must close skills gaps and that, in part, means creating a provincial public post-secondary system that is more responsive to needs and more regionally relevant.

3.1.6. Contribution to the Economy and Economic Development

The provincial education system plays a central role in developing the knowledge and skills that are essential to our economic success and our quality of life. In particular, our efforts to shift from primary resource-based industries and manufacturing to knowledge-based and information-intensive industries have precipitated changes in the skill sets required. The economy increasingly demands technical and reasoning skills, and the fastest growing job categories require post-secondary training. Higher skill levels enable higher productivity, foster innovation and result in higher earnings. Having skilled labour also facilitates industrial restructuring by allowing economic resources to shift to more technology-intensive and productive activities that support higher wages. It also helps to attract investment from both local and outside sources.

> **The growth of internationally competitive businesses depends on employees with university-level education and, increasingly, an education at the Master's and doctoral levels.**
>
> **- Memorial University**
> **White Paper Submission**

Both Memorial University and College of the North Atlantic make substantial contributions to the strength of the provincial economy, beyond the far-reaching economic benefits which result from a well-educated population. In 2004, it was estimated that Memorial University's enrolment of 17,467 students created direct economic benefits for the Province of $144.6 million annually.[6] These benefits were in addition to the economic impacts from research funding ($73.9 million in 2003/04), and out-of-province students choosing to stay in Newfoundland and Labrador after graduation. Similarly, College of the North Atlantic students, faculty and staff contribute millions of dollars each year to the provincial economy.

3.1.7. Involvement with Industry

Our post-secondary institutions are actively engaged in building productive partnerships with business and labour. They recognize that good links play an important role in tackling problems resulting from low skill levels, which constrain our productivity and our economy. For example, in 2000, Memorial established the Oil and Gas Development Partnership. This initiative will see the creation of 12 new programs at Memorial graduating 150 students annually, up to the doctoral level. Such programs include a Master's program in oil and gas, and degrees at all levels in petroleum geology.

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[6] Memorial University of Newfoundland, *Memorial University of Newfoundland: Transforming Aspirations into Reality*. White Paper Submission, September 2004.

In 2001, the $5 million Southside Marine Base was opened to train petroleum and marine transportation workers in offshore safety and survival techniques. In view of the development of the Voisey's Bay nickel deposit, Memorial signed a partnership with Inco Ltd. This $20 million agreement will go towards the construction and operation of an innovation centre focusing on mining education and research.

College of the North Atlantic routinely provides specially tailored curricula to corporations, government departments, agencies, institutions and community organizations. Training programs have been developed in various sectors including business, health care, multimedia and information technology, oil and gas, forestry, environmental sciences and mining. The Labrador West Campus offers a Mining Technician Program in partnership with Iron Ore Company of Canada (IOCC), while the Clarenville and Bay St. George campuses have installed an Open Learning Information Network (OLIN) facility. Further, the College fosters entrepreneurship and small business incubation, offering support in product research and development.

> **Almost 52% of Marine Institute's funds are generated from externally contracted services, which includes training and applied research.**
>
> ***- Marine Institute***
> ***White Paper Submission***

3.1.8. Involvement in Local Communities

Our public post-secondary institutions have a critical role to play in communities, as social and cultural centres and in community leadership. Their presence is felt throughout the Province, through extensive outreach and support activities, as well as through their graduates, who work in every region.

Health-sciences outreach programs, such as Telemedicine offered through Memorial University, have made invaluable contributions to the quality of our health care, especially in rural Newfoundland and Labrador. Many of College of the North Atlantic's faculty and staff are advocates and facilitators for the economic and social development of the communities in which they live, serving on numerous boards, committees and councils. Many have been involved in the arts and in cultural industries. In some communities, their contributions extend to developing and incubating new businesses, assisting small and medium-sized enterprises to develop, test and analyze new products, and providing access to expert staff, new technologies and state-of-the-art equipment.

3.2. Issues and Challenges

3.2.1. Changing Demographics

Changing demographic factors are having a profound effect on our education system. These include decreasing fertility rates, an aging population, net out-migration of our youth and population shifts from rural to urban areas. Our education system also needs to be responsive to groups who encounter barriers to participation.

Since 1991, Newfoundland and Labrador's population has declined by 10% and its working-age population by 4%. Statistics Canada anticipates that the Province's population will continue to age more rapidly than the Canadian average. Although out-migration has been slowing to more historical levels in recent years, most of those leaving are between the ages of 15 and 34 and typically have higher levels of education than the general population.

Figure 3.3 shows the distribution of net migrants by age category for the year 2003/04. In total, 93% of our population loss through out-migration was 15-29 year olds. In 1994, those under 40 formed 53% of the population; a decade later the proportion had decreased to 41%.

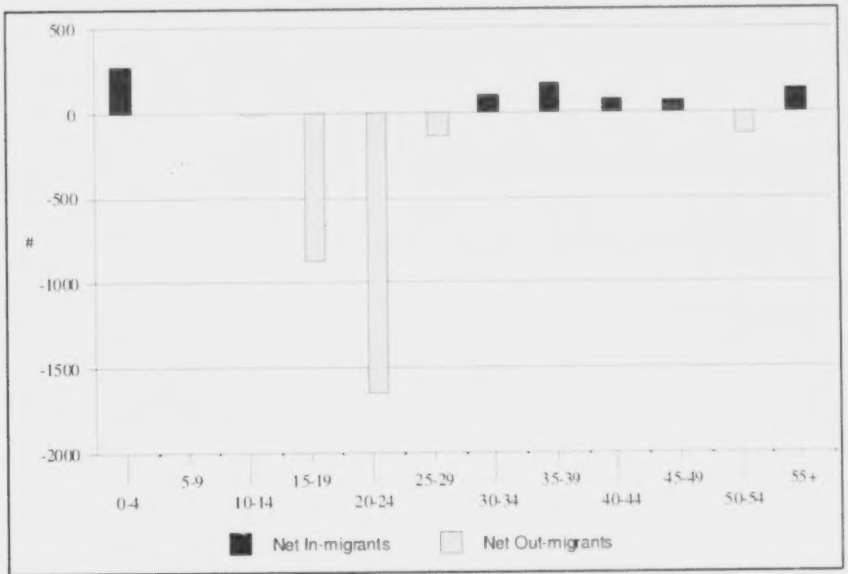

Figure 3.3: Annual Interprovincial Net-Migration by Age Group, Newfoundland and Labrador, 2003/04
Source: Statistics Canada, Demography Division

Both out-migration and population aging have had a particularly strong impact on the rural areas of the Province. As shown in Figure 3.4, the Northeast Avalon region experienced a modest population decline of 0.5% between 1991 and 2001, while the Eastern, Cormack-Grenfell and Central regions had substantially greater decreases, of approximately 15%. Today, 47% of the Province's population lives on the Avalon Peninsula. Further regional population shifts are expected as more youth move and fertility rates continue to decline.

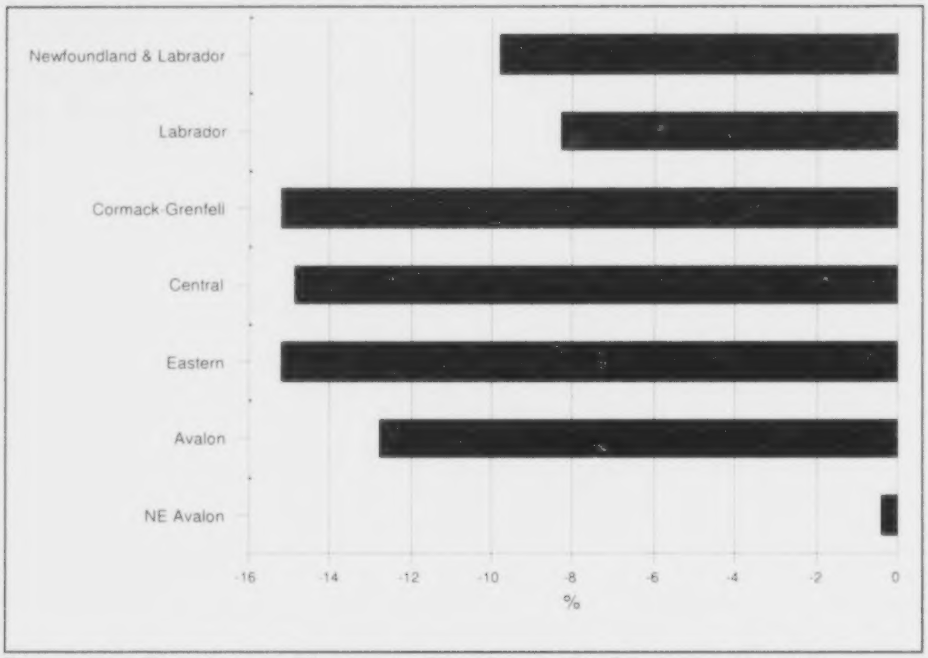

Figure 3.4: Percentage Change in Population by Region, 1991-2001
Source: Community Accounts

Such demographic shifts have long-term implications for planning and maintaining our post-secondary education system. Enrolments in Kindergarten to Grade 12 (K-12) have already declined by 47% since their peak in 1971/72. Furthermore, declines have not been regionally balanced. Over the past decade, enrolment in some rural schools has decreased by as much as 60%, while the Province's Aboriginal population is increasing and will continue to grow.

Despite the Province's best efforts to adjust to demographic change through restructuring, there remain significant challenges associated with delivering a responsive and relevant post-secondary system dispersed throughout many communities across a vast geographic area. The challenges include accessibility, quality and affordability, particularly in rural settings and for certain post-secondary program areas. Not surprisingly, the belief is being voiced that regional disparity is increasing within the Province.

Although many efforts are being made to accommodate our population's great variety of interests, aptitudes and abilities, College of the North Atlantic and Memorial University continue to face issues related to accessibility for groups who encounter barriers to participation. With the clear indication that their clientele has changed in recent years, both Memorial and the College find themselves confronting formidable challenges as they assess their capacity to serve *all* our people.

3.2.2. Financial Support

While we have seen significant growth in post-secondary participation, that growth has not come without a price. Families in this Province, more than any other province, struggle with the cost of post-secondary education. According to Statistics Canada, the average family income in Newfoundland and Labrador remains the lowest in the country, and the income gap between this Province and the overall Canadian average is widening. A higher percentage of families in this Province have lower incomes and a lower percentage have higher incomes, compared to Canada as a whole.

This disparity is also greater in rural areas of the Province and in areas with lower populations. Income gaps compared to the rest of the country, coupled with significantly lower family incomes, mean that Newfoundland and Labrador students run a greater risk of being financially disadvantaged relative to students from other provinces. As a consequence, our students rely more heavily on the Canada and provincial student loans systems. Despite many provincial investments aimed at freezing and reducing tuition levels, student living expenses continue to drive up post-secondary costs and hamper accessibility, particularly for rural and disadvantaged students.

Memorial and College of the North Atlantic are also facing a number of financial challenges as they strive to provide quality post-secondary education. Memorial advises that additional revenues are required to keep the University current and to ensure it is well-positioned for the future. Similarly, in the absence of other revenues, College of the North Atlantic is struggling to find the funding it needs within an environment where costs are increasing.

While the Province has supported both institutions through a series of infrastructure investments, these have not addressed expansion and renewal. Throughout our public post-secondary sector, many buildings are aging, equipment is outdated and significant renovations are required. There are also continuing concerns about our ability to recruit, retain and reward the caliber of academic staff needed to sustain and improve both teaching and research.

> **Given that universities world-wide are in the process of replacing retiring faculty and adding new faculty, recruitment is occurring in an increasingly competitive market. Renewed hiring by the Federal Government and the private sector, especially in high-technology areas, creates further competitive challenges.**
>
> **- Memorial University**
> **White Paper Submission**

Given the close links between the capacity of our post-secondary institutions, the development of provincial resources and our economy, it is critical that our post-secondary environment continues to be supportive of the evolving needs of both students and faculty. It is important that our post-secondary institutions maintain high status in the country and in the world.

3.2.3. Our Challenges

These are challenging times for higher education, amid technological, societal and demographic change and increasing expectations, especially for public universities and community colleges. Nationally and internationally, new educational models and the search for new markets have led to the breakdown of geographical boundaries and to drastic expansion in the types and missions of educational institutions. The labour market continues to become more competitive and technical, demanding that industries increase their efforts to enhance skills. Society is seeing the emergence of the quest for lifelong learning.

> **... the changes in the demographics and the labour market conditions in this province must ... be embraced as an opportunity for our institutions, particularly our rural college campuses, to assist in further developing the economies of the province and help to rebuild our rural communities.**
>
> **- Marine and Mountain Zone Corporation**
> **White Paper Submission**

The economy is also putting pressure on employers to ensure that they have the most skilled personnel for the job. Globally, there is increasing competition to fill jobs with highly-trained and skilled people from many nations. Available positions demand increasingly higher qualifications, making it more difficult for those with less than a post-secondary education to find work. Consequently, higher education has been growing in importance for employment marketability and for preparing society for the future.

Increasingly, professional associations are raising the level of credentials needed for accreditation. The requirement for ever-higher academic credentials has had significant impacts on health-services delivery, for example, and on our education system. This situation often results in demands for new programming and has accreditation implications for our post-secondary institutions.

At the same time, across Canada, post-secondary systems have been facing pressures associated with federal and provincial fiscal support. In this Province, in recent years, there have been several specific challenges related to financing, staff recruitment and retention, skills-based training, equity of access, the establishment of efficient co-operation agreements and the employability of graduates.

To face these challenges, universities and colleges have had to reconsider traditional approaches and strategies and contemplate creating new educational settings that consider distance learning models and franchising. Institutions have adapted by seeking new customers and sponsors for their programs, changing how they provide services, and by endeavouring to increase institutional productivity. However, the growing scarcity of public revenue – a function of competition from other public needs, such as basic education, public infrastructure and health care – has resulted in pressures on governments to reform public infrastructure and to promote inter-institutional economies of scale.

> **The lack of a system approach or direction to respond to emerging or new training needs and disciplines results in a blurring of the lines for institutions' mandates, raises questions as to the efficiency (efficient use of resources) of the post-secondary education system, promotes confusion for learners in terms of institution choice, and in some circumstances, does not fully leverage the opportunity for collaboration.**
>
> **- College of the North Atlantic**
> **White Paper Submission**

4. Our Education and Training System

The education and training system in Newfoundland and Labrador is the responsibility of the provincial Department of Education. This system includes Kindergarten to Grade 12, post-secondary education and library services. The post-secondary institutions include Memorial University, College of the North Atlantic and private training colleges.

4.1. Department of Education

The Office of the Minister of Education consists of the Minister, the Deputy Minister and Assistant Deputy Ministers. These officials are responsible for administering the Department and its legislation through three branches: Primary, Elementary and Secondary Branch, Corporate Services Branch and Advanced Studies Branch.

The Advanced Studies Branch includes the divisions of Institutional and Industrial Education, Adult Learning and Literacy, and Student Financial Assistance. It also has responsibility for the Council on Higher Education Secretariat. The Branch is responsible for the regulation, coordination and evaluation of public and private post-secondary programs, the coordination of literacy programs, the administration of the apprenticeship system (including the interprovincial Red Seal Program), and the provision of financial assistance to students attending post-secondary institutions.

4.2. Institutions

4.2.1. Memorial University

Memorial University comprises the St. John's campus and the Marine Institute in St. John's, Sir Wilfred Grenfell College in Corner Brook, and a residential campus in Harlow, England (see Figure 4.1). It is the largest university in the Atlantic Provinces and offers degree programs at the bachelor's, master's and doctoral levels in several faculties. It is also home to professional schools such as Nursing, Pharmacy, Music and Social Work. In addition, the University hosts several specialized institutes and centres. Government deals directly with the University on budgetary and certain policy matters, while the Board of Regents is responsible for the management, administration and control of its property, revenue and business. The Board has wide latitude in most operational areas. Its members include the Chancellor of the University, the President, the Vice President, appointees of the Lieutenant-Governor in Council, students recommended by the student body and appointed by the Lieutenant-Governor in Council, and members elected by the Alumni.

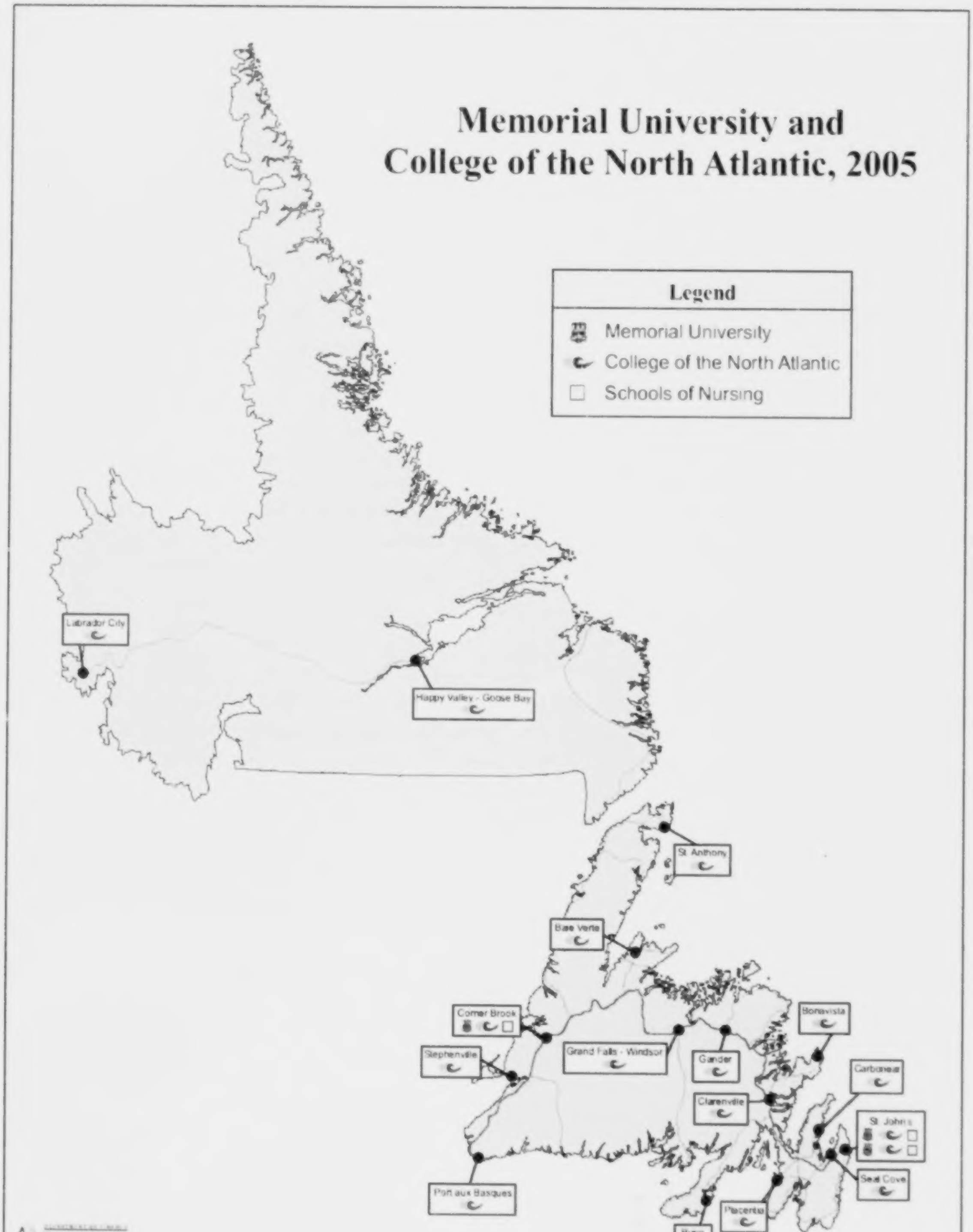
Memorial University and College of the North Atlantic, 2005
Legend
Memorial University
College of the North Atlantic
Schools of Nursing
Labrador City
Happy Valley - Goose Bay
St. Anthony
Baie Verte
Corner Brook
Stephenville
Grand Falls - Windsor
Gander
Bonavista
Carbonear
Clarenville
St. John's
Seal Cove
Port aux Basques
Placentia
Burin
ECONOMICS & STATISTICS
June 30, 2005

Figure 4.1: Campus Sites
(Harlow campus of Memorial not shown)

4.2.2. College of the North Atlantic

College of the North Atlantic is the Province's public college. It is one of the largest non-university, post-secondary education and skills-training institutions in Atlantic Canada. The College offers programs in such areas as information technology, engineering technology, health sciences, applied arts, natural resources, business and industrial trades. It operates 17 campuses across the Province as well as several satellite sites.

The Board of Governors for the College is responsible for directing the affairs of the institution, determining courses and programs and enacting by-laws for the conduct of business. It is made up of the Chair and other members appointed by the Lieutenant-Governor in Council and includes representatives of the faculty and student body.

4.3. Enrolment

The enrolment profile of full-time students in our post-secondary institutions has undergone significant changes in recent years, both in the number of students seeking higher education and the institutions they choose to attend. While post-secondary participation has grown overall, some sectors are showing losses in enrolment. Declining K-12 enrolment also has implications for our post-secondary institutions. In September 2003, there were 81,458 students in the K-12 sector, a 28.6% drop from 1995. Males accounted for 51% of enrolment and females 49%.

4.3.1. Memorial University

As shown in Table 4.1, full-time undergraduate enrolment at Memorial has increased consistently since 2001. The greatest increases between 2003 and 2004 were in full-time undergraduate (253 students) and graduate enrolment (172 students). There was, however, a decrease in part-time undergraduate enrolment between 2003 and 2004. There was also a decrease in first-year enrolment at the University in 2004, likely a result of the declining numbers within the K-12 system. In 2000, females made up 61% of full-time enrolment.

Table 4.1: Enrolment at Memorial University, Fall 2001 to Fall 2004

Category	Fall 2001	Fall 2002	Fall 2003	Fall 2004	% Change 2001-2004
Total	16,156	16,735	17,394	17,785	10%
Full-time Undergraduate[1]	12,237	12,562	12,938	13,191	8%
First Year Enrolment[2]	3,179	3,077	3,120	3,100	-2%
Part-time Undergraduate[1]	2,057	2,156	2,269	2,223	8%
Graduate[3]	1,862	2,017	2,187	2,371	27%

[1] St. John's Campus, Sir Wilfred Grenfell Campus, Centre for Nursing Studies, and Western Memorial.
[2] St. John's Campus and Sir Wilfred Grenfell Campus only. [3] Offered only at St. John's Campus and includes post-graduate Medicine students.

4.3.2. Marine Institute of Memorial University

The Marine Institute has seen a rise in the number of students enrolled in its programs. Enrolment was increased in 2001 by an initiative to raise participation in first-year Nautical Science and Marine Engineering programs. In Fall 2004, 80% of enrolment was men.

Table 4.2: Enrolment at the Marine Institute of Memorial University, Fall 2001 to Fall 2004

Marine Institute	Fall 2001	Fall 2002	Fall 2003	Fall 2004	% Change 2001-2004
Enrolment[1]	1,027	1,038	1,141	1,159	13%

[1] Students enrolled full time and part time in diploma, advanced diploma and certificate programs and in graduate and undergraduate degree programs.

4.3.3. College of the North Atlantic

Table 4.3 shows the Fall enrolment of full-time and part-time students at College of the North Atlantic since 2001. Total enrolment at the College has fallen 9%, with the greatest decline in part-time enrolment. In 2004, enrolment was 3.3% lower than the previous year. On average, a slightly higher percentage of students are male.

Table 4.3: Enrolment at College of the North Atlantic, Fall 2001 to Fall 2004

Category	Fall 2001	Fall 2002	Fall 2003	Fall 2004	% Change 2001-2004
Total Full-Time	6,340	6,171	6,016	5,845	-8%
Total Part-Time	698	644	611	563	-19%
Total[1]	7,038	6,815	6,627	6,408	-9%

[1] Enrolment figures include full-time and part-time students in all programming areas: fee payer, contract, general studies, distance education and apprenticeship.

4.3.4. International Students

Post-secondary institutions in Newfoundland and Labrador have always enrolled international students. However, given the declining number of potential post-secondary students in the provincial population, greater international recruitment efforts have been initiated by Memorial University and College of the North Atlantic. Table 4.4. shows the changes in these enrolments from 2001 to 2004.

Table 4.4: Enrolment of International Students at Memorial University and College of the North Atlantic, Fall 2001 to Fall 2004

Institution	Program of Study	Fall 2001	Fall 2002	Fall 2003	Fall 2004	% Change 2001-2004
College of the North Atlantic	Regular programs and English as a Second Language (ESL)	34	42	44	34	0%
	Contract Training	30	17	7	13	-57%
	Studying in China	0	531	559	556	--
Memorial	Degree Programs	420	499	587	671	60%

4.4. Participation Rates

High school graduates in Newfoundland and Labrador are pursuing post-secondary education in increasing numbers. A follow-up survey of the June 2001 high school graduating class indicated that 71% enrolled directly into post-secondary programs during that year (up from 64.7% in 1996). This represented 76% of females and 65% of males.

Of post-secondary participants, 56% chose Memorial University (up from 53% in 1996), 25% chose College of the North Atlantic (up from 17% in 1996), while 6% chose private colleges (down from 18% in 1996). A further 11% attended post-secondary institutions outside the Province.

Sixty-nine percent of rural high school graduates enrolled in post-secondary programs that year compared to 73% of urban[7] graduates. Of these, 81% of urban students attended Memorial compared to 44% of rural students. In contrast, 33% of rural students attended a College of the North Atlantic campus compared to 7% from urban centres.[8]

4.5. Graduation Rates

4.5.1. Memorial University

The overall graduation rate for Memorial University (the percentage of full-time undergraduate students in their second year who go on to graduate within one year of the expected time period) increased from 58.3% in 1996 to 75.8% in 2004.[9] While progressive, Memorial's rates are still toward the low end of the range reported by universities across

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[7] Urban Newfoundland and Labrador is defined as the cities of Corner Brook, Mount Pearl and St. John's (including surrounding communities, such as Conception Bay South, Portugal Cove-St. Phillips and Torbay).

[8] Department of Education.

[9] "Universities 1996" (Annual publication of selected university statistics), *Maclean's*, November 1996; "Universities 2004" (Annual publication of selected university statistics), *Maclean's*, November 2004.

Canada. Memorial's rate of retention of first year students rose from 75.1% in 1985 to 85% in 2002.

4.5.2. College of the North Atlantic

Between 2000/01 and 2002/03, graduation rates for College of the North Atlantic[10] remained relatively stable. Rates for one-year programs ranged from 64% to 67%, two-year programs ranged from 52% to 57%, and three-year programs ranged between 41% and 43%.

4.6. Student Financial Assistance

Government-assisted loans are available to students attending post-secondary institutions on a 60% federal – 40% provincial cost-shared basis. In academic year 2004/05, students can borrow up to $165 per week under the Canada Student Loan Program (CSL) and up to $110 a week through the Newfoundland and Labrador Student Loan Program.

During the 2003/04 academic year, 11,506 students in Newfoundland and Labrador qualified for approximately $82 million in student loans. Of this, $32 million was provincial and the remainder was federal loans. Almost half of the Province's student borrowers fell in the *dependent* student category (i.e. the income of the student's parents is considered in determining available financial resources). Of the balance, 41% were independent students, 5% were married and 4% were single parents. Approximately 60% of all student borrowers were female and more than half of all borrowers were between the ages of 21 and 25.

Between 1997/98 and 2003/04, there was a decrease in both the total value and number of student loans in the Province (Tables 4.5 and 4.6). The 11,506 loans issued in 2003/04 represented a 45% decrease from 1997/98, largely because of the reduced number of students at private colleges in the Province. However, despite relatively stable enrolment at Memorial University and College of the North Atlantic, there was also a drop of 18% and 33%, respectively, in the number of loans approved for these institutions.

Table 4.5: Value of Student Loans Issued, Newfoundland and Labrador and Canada Student Loans, 1997/98 to 2003/04

Academic Year	Canada Student Loans	NL Student Loans	Total
1997/98	$98 M	$61 M	$159 M
1999/00	$85 M	$56 M	$141 M
2001/02	$64 M	$42 M	$106 M
2003/04	$50 M	$32 M	$82 M

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[10] College of the North Atlantic, *Report on Student Graduation and Attrition Rates 1998-2003*, 2004.

Table 4.6: Number of Student Loans Issued, Newfoundland and Labrador, 1997/98 - 2003/04

Location of Studies	1997/98	1999/00	2001/02	2003/04	% Change from 1997/98 to 2003/04
Memorial University[1]	7,561	7,980	6,844	6,184	-18%
College of the North Atlantic	2,914	3,170	2,382	1,947	-33%
Private Colleges	7,089	4,092	2,071	1,487	-79%
Out-of-Province Institutions	3,335	3,440	2,800	1,888	-43%
Total	20,899	18,682	14,097	11,506	-45%

[1] Includes Marine Institute and Nursing Schools

While the number and total value of loans have been decreasing, there has been an increase in the average loan amount provided since the introduction of the provincial loan program. The average approved loan amount in 2003/04 was $7,091. This level was similar for students across all sectors with the exception of students studying out-of-province, who borrowed $8,526 on average that year.

4.7. Student Debt

Recent government initiatives to reduce the average annual student loan amount appear to be working. While debt in 2003/04 was higher than in 1997/98, since 2001/02, debt has been declining in nearly all sectors.

Students at Memorial University, excluding the Marine Institute, have consistently shown the highest levels of accumulated debt, because of the longer duration of university programs. In 2003/04, the average accumulated debt for an undergraduate university program was $30,710.

Table 4.7: Average Accumulated Student Debt[1], Newfoundland and Labrador, 1997/98 - 2003/04

Institution	Program	1997/98	1999/00	2001/02	2003/04
Memorial University	Undergraduate	$27,163	$32,354	$31,218	$30,710
	Master's	$28,214	$31,688	$34,731	$32,655
	Non-Degree	$21,342	$27,350	$22,739	$23,742
	Marine	$16,550	$20,123	$20,840	$22,698

Institution	Program	1997/98	1999/00	2001/02	2003/04
College of the North Atlantic	1 Year	$8,889	$10,261	$10,445	$8,907
	2 Year	$14,139	$17,586	$17,589	$16,041
	3 Year	$19,397	$25,256	$26,022	$26,054
Private Colleges	1 Year	$9,807	$13,223	$11,048	$9,401
	2 Year	$18,509	$22,872	$22,324	$19,885

[1] Total accumulated debt before loan remission.

4.8. Loan Repayment

Although Memorial University students had the highest levels of debt, a recent survey of post-secondary students who graduated in 2002 showed that Memorial University graduates were the most successful in servicing their student loans, retiring 17.3% of the overall accumulated debt within a year and a half after graduation. College of the North Atlantic borrowers retired 16.6% of their loan debt over the same period.

4.8.1. Interest Relief

Under the Canada-Newfoundland Interest Relief Program, eligible borrowers who experience difficulty making their loan payments because of low income can have their student loans made interest-free. Payments on principal are not required for a period, and the provincial and federal governments pay the associated interest costs to the lender.

4.8.2. Loan Remission/Debt Reduction Grants Programs

In August 2002, Debt Reduction Grants were introduced, replacing the previous Loan Remission Program. Paid to borrowers upon graduation from post-secondary programs, these grants assist those who, as a result of financial need, borrowed at the upper limits of available assistance. If a borrower meets the criteria, arrangements are made with the lender to reduce or eliminate the principal amount of the provincial loan. The number of approved applications to the Loan Remission and/or Debt Reduction Grants Programs rose from 454 in 1998/99 to 613 in 2003/04.

Table 4.8: Recipients, Average Amount and Total Amount of Loan Remission/Debt Reduction Grants Programs, Newfoundland and Labrador, 1997/98 - 2003/04

Academic Year	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Number of Recipients	36	454	489	624	664	536	613
Average Amount	$4,683	$6,237	$8,121	$8,404	$8,716	$8,354	$8,248
Total	$0.2 M	$2.8 M	$4.0 M	$5.2 M	$5.8 M	$4.5 M	$5.1 M

4.9. Employment and Educational Attainment

In Newfoundland and Labrador, the highest unemployment rates are found at the lowest levels of education: 27.7% and 24.1% for the levels lower than high school completion. Figure 4.2 shows that the same pattern is evident for Canada, although the Province's unemployment rates at the lower levels of educational attainment are high compared to the national rates. As with participation rates, at the university level there is a much smaller difference between the unemployment rates for Newfoundland and Labrador and for Canada: 5.1% and 4.9% respectively.

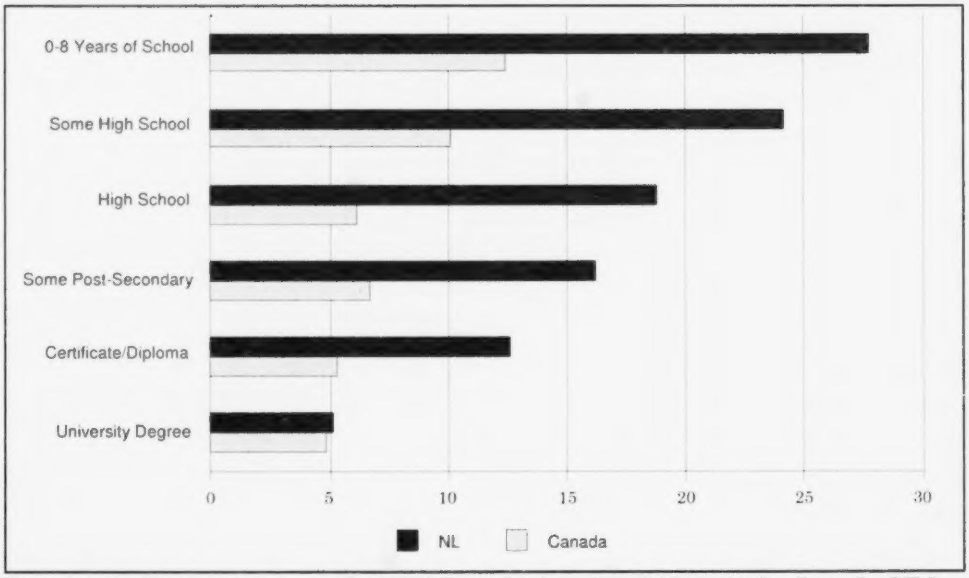

Figure 4.2: Unemployment Rate of Population Aged 25 to 54 by Level of Educational Attainment, Newfoundland and Labrador and Canada, 2004
Source: Statistics Canada, Labour Force Survey 2004

As indicated in Figure 4.3, those with higher levels of education usually have higher earnings. Consistent with the findings of the Labour Activity Survey 2001, the 5-Year Graduate Follow-Up Study found that the highest reported wage earners were Memorial University master's degree graduates, 75% of whom reported earning more than $800 weekly. Forty-five percent of bachelor-level graduates reported more than $800 weekly, and 35% earned between $561 and $800 a week.

Graduates of public college two- and three-year programs also reported high wages, with 31% of respondents earning more than $800 weekly and 39% earning between $561 and $800. Graduates from public college one-year programs generally had lower earnings, with just over 35% reporting weekly earnings of $321-$560.

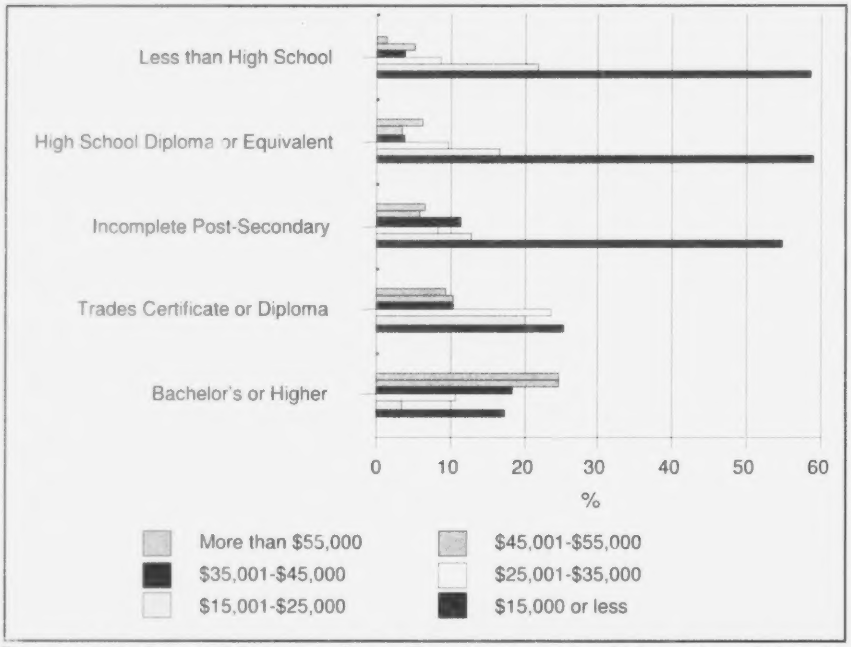

Figure 4.3: Annual Income from Employment by Educational Attainment, Newfoundland and Labrador, 2001
Source: Community Accounts Labour Activity Survey, 2001

4.10. Graduates and the Labour Market

One measure of the effectiveness of a process is the quality of the product it delivers. In terms of post-secondary education, the process is the program and the product is the graduate.

CareerSearch, a biennial publication of the Department of Education, examines labour-market outcomes of the Province's post-secondary graduates to determine if programs are producing students who are successful in the labour market. While labour-market attachment is not the only purpose for a post-secondary education, it is, for most students, a very important objective. An overview of labour-market outcomes for graduates of Memorial University, including the Marine Institute, is presented in Table 4.9.

Table 4.9: Memorial Graduates (including the Marine Institute) 2002 Employment Status One Year after Graduation

Graduates	Employed Full-Time	Employed Part-Time	Unemployed	In School	Other
			%		
Memorial Certificate	58.6	13.8	13.8	12.6	1.2
Memorial Diploma	71.0	12.9	12.9	3.2	0
Memorial Master's	69.6	7.5	11.0	9.3	2.6
Memorial Bachelor's	63.1	9.4	14.6	10.4	2.4
Marine Advanced Diploma	62.5	4.2	25.0	8.3	0
Marine Certificate	68.8	4.7	18.8	4.7	3.1
Marine Diploma	78.2	3.4	12.6	5.7	0
Centre for Nursing Studies	87.4	9.9	1.8	0	0.9
Western Regional School of Nursing	94.3	2.9	0	0	2.9

Overall, approximately 64% of Memorial graduates in 2002 were employed full-time one year after graduation. The highest rates of full-time employment at the post-graduate studies level were those with degrees in Business, Education, Marine Studies, Nursing and Social Work. At the bachelor's level, the highest rates of full-time employment were found in Social Work, Nursing and Pharmacy. Furthermore, with the exception of Marine Studies, more than 80% of graduates from these programs who were working full-time were in jobs directly related to their training.

Programs of longer duration generally have better labour-market outcomes. As Table 4.10 indicates, College of the North Atlantic graduates of three-year programs had substantially higher rates of full-time employment than graduates of one- and two-year programs.

Table 4.10: Employment Status of College of the North Atlantic Graduates of 2002 One Year after Graduation

Graduates	Employed Full-Time	Employed Part-Time	Unemployed	In School	Other
			%		
One-Year Program	61.2	16.5	16.1	2.6	3.7
Two-Year Programs	68.5	10.2	16.7	1.8	2.8
Three-Year Programs	84.4	6.3	8.3	0.6	0.3

5. Strategies for Strengthening the Base

Factors such as socio-economic status, rurality, gender, age and access to information and counseling services affect educational aspirations and expectations. These factors have an effect on how much post-secondary study is pursued, and on the choice of institution and the program of study.

Education levels are increasing generally, yet challenges remain. At the time of the 2001 Census, only 2% of 26 to 64-year-olds with high school or less were attending school.[11] In that year, the Newfoundland and Labrador General Educational Development (GED) examination participation rate for adults without high school diplomas was just 0.2% - one of the lowest in the country.

To ensure that all Newfoundlanders and Labradorians are able to participate in our educational system and the labour force, to meet our current challenges and to keep pace with future demands, a strong educational foundation must be in place. This chapter describes specific initiatives Government will undertake to accomplish this goal.

5.1. Adult Learners

Our Province may not have a sufficient skills base to support economic development in the future. Fifty percent of the workforce of 2015 is already in the labour market,[12] and the Province's median age is expected to increase from 39 in 2003 to roughly 47 years in 2018. By 2016, with the current birth rate and barring substantive in-migration by younger age groups, 36% of the provincial population will be over 55 and 19.1% will be over 65. Also at issue is the educational level of those of working age: 35% of this Province's current population aged 25 years or older has less than a high school education.[13]

To ensure that we have enough skilled workers for the future and that we remain competitive in a rapidly changing economy, we must ensure the participation of as many adults as possible in the labour market, including those groups that have not participated in the past. Further, we must accept the reality that learning will be required throughout our working lives.

To assist with these aims, the Province needs a provincial campaign that conveys positive information about the range and value of adult learning to individuals, policy-makers, the private sector and the media. Such a strategy has been employed by others. Since

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[11] Census 2001.

[12] HRDC, *Knowledge Matters-Skills and Learning for Canadians*. Government of Canada, 2002.

[13] Census 2001.

UNESCO's 1999 General Conference approved the creation of International Adult Learners' Week, more than 40 countries have organized or are preparing learning festivals. The Council of Ministers of Education Canada (CMEC) marked International Adult Learners' Week in 2002. This was Canada's official first step in a concerted effort to promote and raise the profile of adult learning among the general public, within various learning environments.

Modeled after Australia's Adult Learning Week, our provincial campaign will celebrate and promote all forms of adult learning, utilizing both internal and outreach components. The campaign, designed for use within a learning setting, will address those already involved in adult learning, encouraging them to share the value of learning with those who have not been participants. The campaign will target audiences who are not engaged in learning, and let them know that learning is a valuable option and that there are many ways to participate. It will encourage them to learn more about their options. The Canada-Newfoundland and Labrador Labour Market Development Agreement is a tool available to support such a campaign.

We will

- **Advance a provincial Adult Learning Campaign to recognize the critical need to promote and raise the profile of adult learning.**

5.2. Aboriginal Education

The Federal Government provides financial assistance for most Aboriginal post-secondary education students through such programs as the Aboriginal Human Resource Development Agreement (AHRDA) and the Post-Secondary Students Support Program (PSSSP).

The Province's Aboriginal population continues to grow. However, as a result of socio-economic status and, in some cases, the extreme remoteness of communities, the Aboriginal population faces additional challenges, such as low educational attainment levels. Low literacy rates among the Innu and Inuit adult population and the small number of coastal Labrador students graduating from high school underscore the need to provide increased access and transitional programs to support and encourage Aboriginal students' participation in post-secondary education. Research has shown that community delivery and Aboriginal control are important keys to success.[14]

In Labrador, the close relationship between the Labrador Institute of Memorial University and the Happy Valley - Goose Bay Campus of College of the North Atlantic encourages students to pursue university programs using the College-University Transfer Year option. At this campus, the College and the University co-design programming that leads to better student success. In essence, the relationship that exists in Labrador blurs the lines that separate the two institutions elsewhere.

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[14] R.A. Malatest and Associates Ltd., *Aboriginal Peoples and Post-Secondary Education: What Educators Have Learned*, Canada Millennium Scholarship Foundation, 2004.

College of the North Atlantic, through its Happy Valley-Goose Bay campus and Coastal Learning Centres, has 321 Aboriginal students enrolled in diverse programs close to their home communities. To accommodate growth in enrolment, the Happy Valley-Goose Bay campus requires an assessment of its physical facilities.

We will

- **Provide funding budgeted at $250,000 to assess the facility requirements at College of the North Atlantic in Happy Valley-Goose Bay to accommodate the growth in Aboriginal enrolment.**
- **Persist in securing access to the Post-Secondary Student Support Program and other federal Aboriginal programs for members of the Federation of Newfoundland Indians and the Labrador Metis Nation.**

5.3. Women's Participation

In 2003, women comprised 47% of the labour force; however, women's average earnings were only 67% of men's. In all of Statistics Canada's 10 broad occupational categories, the average hourly wage of women was less than that of men. Additionally, in 2002, women headed 61.5% of low-income families and more than 82% of lone-parent families. To address employment and income equity issues, the participation of women in a broad range of education and training programs must be encouraged.

In 2003, women comprised 62% of full-time enrolments at Memorial University and were particularly prevalent in programs such as nursing, social work and education, and were equitably represented in business administration, medicine and forestry programs. However, women's enrolment in engineering and applied science programs declined from 21.5% in 2001 to 18.3% in 2003. College of the North Atlantic reported that women comprised 43% of its 2003 enrolment. While enrolment in programs such as business and health studies was predominantly female, women comprised only 12% of those enrolled in industrial trades and 18% of those enrolled in engineering technology.

Because economic opportunities within the Province's oil and gas sector are forecast to require engineering, applied science and skilled trades, women's advancement in these areas is critical if they are to share equitably in our economic benefits.

We will

- **Call on our institutions to**
  - **ensure recruitment strategies support the participation of women in engineering, applied science, technology and skilled trades.**
  - **identify more scholarship opportunities for women in engineering, applied science, technology and skilled trades programs.**
  - **improve women's representation in decision-making positions.**
- **Work with the federal government, business and industry to enhance apprenticeship employment opportunities for women.**

5.4. Rural Participation and Distance Delivery

In a province as vast as Newfoundland and Labrador, many individuals must leave home to pursue post-secondary education. Recent research by Statistics Canada indicates rurality and low income, in combination, have a particularly powerful impact on a person's ability to participate. There is a relationship between university and college participation and family income and distance from school. Costs can deter students from pursuing a university or college education, regardless of interests and abilities.

Tuition fees currently represent a relatively small part (less than 30%) of the total cost of education for most students. The average full-time university student living with parents spends $4,400 per year on non-educational items (food, accommodations, utilities, etc.) compared to more than $8,160 for those who do not live with their parents.[15] Median annual costs for full-time college students living at home are $3,700 compared to $8,100 for those living away, according to the Statistics Canada study.

The financial burden on rural students is increased further by the fact that family incomes in rural areas are typically lower than those in larger centres. Considering these facts, it is not surprising that rural students and others living away from home have a greater dependence on government-sponsored student loans.

In recognition of the increased costs and increased loans borne by rural students, Government introduced the Debt Reduction Grant Program in 2002. Designed to assist students who, out of necessity, are required to borrow at the upper limits, this program provides grants to students upon graduation.

In addition to the higher costs, living away from home can also affect how well younger students integrate into the post-secondary education environment. Attrition among rural youth is higher than for urban youth. The Enrolment Planning Working Group at Memorial has already recognized that orientation experiences should be established which address the social as well as the academic needs of rural students.

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[15] Statistics Canada, *Access, Persistence and Financing: First Results from the Post-secondary Education Participation Survey* (PEPS), September 2003.

Its broad range of programs and proximity to home encourage many rural students to attend College of the North Atlantic. For those seeking a university education, five of these 17 campuses offer a College-University Transfer Year, allowing many rural students to complete part of their university program closer to home. Enrolment in this program has increased from 203 in 2000/01 to 256 in 2003/04, with students using the option as a springboard to further post-secondary pursuits.

Options for further enhancing access must explore opportunities for innovative program delivery, including distance learning, and avoid, where possible, the need for increased student borrowing. Even tuition decreases and freezes do not provide sufficient help for rural and financially disadvantaged students who are not living within commuting distance of post-secondary institutions.

Access is also an important factor in workplace training. To keep pace with the ever-changing market place and advancing technologies, workers are facing increased demands to upgrade their skills and to keep them up-to-date. While the 2003 Adult Education and Training Survey (AETS) conducted by Statistics Canada reported an increase for the Province in formal job-related training and employer-supported formal training compared to 1998, the rates (29.5% and 19.9% respectively) were still the lowest in the country. Nationally, more than 33% of the adult workforce participates in formal job-related training. New strategies are needed to ensure our labour force is equipped to meet future needs.

Increasing this participation rate will be difficult, in part because Newfoundland and Labrador has a large number of small and medium-size enterprises (SMEs). More than 95% of our business enterprises employ fewer than 50 people, and almost 80% of these employ fewer than five.[16] SMEs face particular challenges for training employees, having limited resources to support employee development and especially because of the impact of lost production time during training. While SMEs typically cannot spare their workers when they are busy, the workers cannot afford training during slow periods.

Concerns about losing trained workers to competitors, the shortage of suitable training courses and trainers, and under-developed human resource management and planning functions are other factors affecting participation in workplace training. If training is to be made available to business owners and their employees, it must be through distance education or some other means that will not require employees to take excessive time from their work.

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[16] *Securing Our Future Together: A Renewal Strategy for Jobs and Growth*, Government of Newfoundland and Labrador, March 2001.

We will

- **Provide funding to College of the North Atlantic and Memorial University to expand distance education programming to rural communities and to enhance delivery of workplace-based training for small and medium sized enterprises, budgeted at**
  - **$0.5 Million for fiscal year 2005/06**
  - **$0.5 Million for fiscal year 2006/07**
  - **$0.5 Million for fiscal year 2007/08.**

5.5. Adult Academic Upgrading

A recent analysis based on Organization for Economic Cooperation and Development (OECD) data shows that a 1% increase in adult literacy produces a permanent 1.5% increase in gross domestic product.[17] Other studies have shown that low levels of participation in education and training are found more often in population subgroups which include those who are older, those who have low literacy levels, the long-term unemployed, low wage earners, those in distant and rural settings, and workers in small and medium-sized enterprises. Newfoundland and Labrador's adult population has a strong representation from these subgroups.

While there have been continual improvements in the overall educational attainment profile of our population, Census 2001 data indicate that a high proportion of the Province's adults have low levels of education and many do not participate in adult education.

The following sections describe some of the programs that help us address these challenges.

5.5.1. Adult Basic Education Level I

Adult Basic Literacy (ABL) and Adult Basic Education (ABE) Level I programs focus on reading, writing and numeracy skills. They are currently delivered by community-based groups, public and private colleges and other organizations.

The Department of Education currently provides approximately $0.5 Million annually in operational funding to approximately 14 ABL/ABE Level I centres across the Province. A variety of approaches are used for delivery. Basic literacy is most often provided by tutors, whereas ABE Level I is offered in classrooms as a stand-alone program or with Levels II and III. Significant volunteer effort is required to manage and deliver community-based programs, particularly those that use one-to-one tutoring.

ABE Level I delivery could benefit from combining part-time instruction in a classroom setting with web-based internet delivery. Appropriately designed, this could provide a full-time program without requiring full-time classroom instruction. In the current approach, the instructor often circulates throughout the classroom providing individual instruction, and as a result, the students often work independently using reading materials, work sheets or other practice resources. If some of this material were moved to a technology-based delivery mode, it would allow greater flexibility for the adult student who cannot attend full-time because of family or other commitments.

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[17] *Policy Brief - The Promise and Problem of Literacy for Canada: An Agenda for Action*, Canadian Education Association, 2004.

The 165 Community Access Program (CAP) sites across the Province, which provide public access to computers and the world wide web, are a good means for literacy learners to access computer-based material. In 2004, these 165 sites recorded an average of 12,265 visits monthly by 19-54 year olds, indicating that this is a place where adults feel comfortable using computer technology. Further, 98 public libraries are equipped with computers connected to the internet. They may also serve as partners in delivering literacy training.

A web-based internet delivery system would have to be developed around the objectives of the ABE Level I program guide. The Centre for Distance Learning and Innovation (CDLI) has the necessary expertise to carry out this development work and this could serve as a model for more widespread use.

We will

- **Develop the ABE Level I program for delivery through a combination of part-time instruction in a class setting and web-based internet delivery.**

5.5.2. Adult Basic Education Levels II and III

Although College of the North Atlantic is the principal delivery agent for ABE Levels II and III, the programs are also delivered by community-based organizations and some private institutions. In 2003/04, the College's Program Plan allocated an ABE capacity of 728 students. However, actual enrolment was 1,205 full-time and 35 part-time students, and there was a waiting list of 348.

Because there have been changes to the high school curriculum since the program's last update in 1995, and because it lacks equivalency to high school, the current ABE program must be revised. In addition, there is evidence that the present program is too rigidly structured to respond adequately to many adults who experience academic difficulty. Changes have been proposed by the College of the North Atlantic to reorganize the program to ensure high school equivalency and its value as a passport to other opportunities. It is proposed that, instead of the existing two streams (academic and general), the revised ABE program offer four options or profiles:

1) ***Degree and Technical Profile***, designed for students intending to pursue post-secondary studies requiring graduation from a high school academic stream.

2) ***Business-Related Profile***, designed for students intending to pursue business-related post-secondary programs requiring graduation from a high school academic stream (this would place greater emphasis on Social Studies, Technology and Economic Education courses).

3) ***General Profile***, designed for students intending to pursue post-secondary programs requiring graduation from a high school general stream.

4) ***Job Entry Profile***, designed for students who would experience difficulty with the General College Profile and who do not intend to pursue post-secondary studies.

Currently, College of the North Atlantic's expenditures for ABE Levels II and III represents 2% of its grant-in-aid budget. In light of actual enrolment demand, the College will need to increase its ABE capacity in future program plans.

We will

- **Require College of the North Atlantic to allocate 5% of its provincial operating grant to transitional and academic upgrading so that these programs are more readily available at the College's campuses.**

5.5.3. General Educational Development (GED)

While ABE provides a viable alternative to high school completion, most who take this program are in the 18-25 age group. Other adults require an alternative program which can be completed in a shorter time and is more targeted on employment. The General Educational Development program is an international high school equivalency-testing program for adults. Through the program, adults demonstrate that they have acquired a level of learning that is comparable to that of high school graduates by passing a series of tests in writing skills, social studies, science, interpreting literature and the arts, and mathematics. The GED tests have been administered at provincial testing sites since 1974. By 2001, more than 16,000 participants from the Province had received high school credentials through the GED program.

The Newfoundland and Labrador GED participation rate for adults without high school diplomas was just 0.2% in 2001, one of the lowest in the country. Further, recent statistics for this Province show that the failure rate for the GED exam between 2002 and 2004 was 37%. Many candidates who fail would benefit from a preparation course designed to provide background information for the GED exam. This preparation program would

- provide an alternative to ABE;
- improve adult education graduation rates for high school completion;
- reduce the time required for current high school equivalency completions;
- improve skill levels associated with the existing GED certification process;
- facilitate a need-to-know approach to content as opposed to the traditional comprehensive approach of ABE.

We will

- **Pilot a 15-week structured educational program for GED certification at College of the North Atlantic with the intent of expanding it to all campuses, as demand warrants.**

5.6. Apprenticeship Training

Canada is facing a skills shortage. In Newfoundland and Labrador, certain areas, such as the construction trades, are likely to experience critical shortages in coming years.[18]

Business and industry leaders, educators and labour leaders are more concerned than ever about the widening gap between the skills workers have and the skills industry needs. Industry surveys also speak to this concern. College of the North Atlantic and private colleges, through various program offerings, strive to produce graduates whose skills meet industry's standards and can respond to the broad range of labour-market demands. For apprenticeship training, however, this objective faces additional challenges.

Both employers and employees share an interest in identifying and meeting the needs of workers. Apprenticeship requires significant cooperation among many partners, such as

- the Provincial Apprenticeship Board, whose role it is to administer the *Apprenticeship and Certification Act*;
- employers, whose role it is to provide adequate hours of appropriate practical training and experience, as well as release time so that apprentices can return to school and complete their training;
- training institutions, which, in addition to delivering quality training, must establish a protocol for industry's input, to ensure responsiveness and relevance.

The apprenticeship system, while under provincial jurisdiction, is very much pan-Canadian through the Red Seal program. This program allows for the mobility of qualified workers throughout the country. As a result, there is a high degree of jurisdictional interrelatedness associated with this program area, which gives rise to many issues related to jurisdictional cooperation.

Apprenticeship programs, which normally span a four- to five-year period, consist of approximately 25% classroom instruction and 75% on-the-job training. After the completion of entry-level courses normally spanning three semesters, apprentices seek to gain on-the-job experience, logging hours with an employer. Advanced-level training is interspersed with on-the-job training. Apprentices can take their certification examination only after all courses have been completed, the required competencies have been achieved on-the-job, and the prescribed number of on-the-job hours has been logged.

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[18] Bruce, D. and A. Dulipovici, *Help Wanted: Results of CFIB Surveys on the Shortage of Qualified Labour*, February 2001.

To be successful, the apprenticeship system must have strong industry involvement; however, one of the most serious problems this Province faces is the inability of many employers to participate. While many businesses cite fiscal challenges, others report a lack of human resources. As noted, more than 95% of all business enterprises in this Province employ fewer than 50 people, and about 80% of these employ fewer than five. This problem is compounded when employers are required to have one journeyperson for each apprentice.

For those apprentices who complete their training and receive journeyperson certification, employment outcomes are very positive. A follow-up study of those certified in 2000[19] showed that almost 80% found full-time employment and 90% of employed journeypersons earned weekly wages higher than $560.

Despite the positive outcomes for certified journeypersons, attrition within apprenticeship programs is high. The findings of *The Apprenticeship Experience: 2003 Survey of Registered Apprentices*[20] indicate that the completion rate for entry-level training is good, with 86% of apprentices surveyed completing their entry-level courses. However, many had difficulty logging the required hours to qualify for their journeyperson certificates.

Of the 4,401 apprentices surveyed, only 7.4% were considered to be on track to complete their journeyperson qualifications: that is, logging enough hours and completing advanced level training within the expected time. An additional 30% had logged some hours but had not completed any of the additional training, primarily because they did not have enough hours to be eligible for the courses. Industrial training records indicate that while 1,500 apprentices register annually, only 300 (20%) write the journeyperson certification examination.

Although apprentices are seeking job experience and employers need skilled workers, they are not connecting. While the majority of apprentices (65%) have completed high school and an additional 14% hold a college diploma, the Newfoundland and Labrador Employers' Council reports that, in their experience, "the academics of graduates are often weak. This is attributed to the lowering of academic standards in the system because of high failure rates in those areas" (White Paper Submission).

Other problems within the apprenticeship program relate to gender. The Employers' Council states that lack of diversity among graduates is an issue and that women continue to be underrepresented in many trades. This is not unexpected, since women represent less than 3% of apprentices in non-traditional female trades and those who do participate earn lower wages than their male counterparts.

A wage-subsidy program would ease the financial challenge of hiring apprentices. The Government of the Northwest Territories offers such a program. Its Apprenticeship Training Assistance wage-subsidy program helps apprentices become certified journeypersons in designated trades. An employer and an apprentice enter into an agreement that provides a portion of the apprentice's salary, assisting the employer to train the apprentice for a permanent job. In return, employers release apprentices from the workplace to engage in advanced-level classroom instruction, as required.

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[19] CareerSearch, *Employment Experience and Earnings of 2000 Graduates*, Department of Youth Services and Post-Secondary Education, 2002.

[20] *The Apprenticeship Experience: 2003 Survey of Registered Apprentices of Newfoundland and Labrador*, Department of Education, 2004.

A similar wage-subsidy pilot program for Newfoundland and Labrador should be able to test its effectiveness for increasing the proportion of apprentices who achieve journeyperson status.

Additional areas of concern for industry arise from curriculum issues and the use of Advisory Committees. Provincial Advisory Committees are established for each trade area by the Provincial Apprenticeship Board to provide advice and guidance on issues related to their trade. However, as evidenced in its submission to the White Paper, the Employers' Council is concerned about the Committees' input on curriculum issues. A better understanding of the Advisory Committees and their role in advising the Provincial Apprenticeship Board is required.

We will

- **Review the policy that requires one apprentice to work with one journeyperson.**
- **Work with the federal government, business and industry to identify the best strategies for increasing apprentices' employment opportunities, including piloting a wage-subsidy program with priority given to females, to support Small and Medium Enterprises in their hiring of apprentices.**
- **Introduce a policy for Government to increase its hiring of apprentices.**

6. Strategies for Improving System Capacity

Post-secondary education has never been more important for students of all ages in the Province. Consequently, the provincial post-secondary system is being challenged to accommodate a more diverse range of learners, and to do so with an increased emphasis on system accountability and demonstrated results.

At the same time, higher education is becoming a global commodity, traded across political and geographic boundaries, and characterized by rapid growth in providers and by the proliferation of distance learning opportunities. Growth in international education markets has also increased opportunities to recruit international students.

Meeting our challenges and capturing new opportunities require us to reassess and refocus our physical and human resource capacity while enhancing post-secondary programming.

6.1. Memorial University

Created in 1925 as a memorial to the Newfoundlanders and Labradorians who lost their lives during the First World War, Memorial College became a university in 1949. Memorial University is now a comprehensive university, offering a wide range of programs at the undergraduate and graduate levels, including professional degrees, and encompassing a significant amount of research activity. It employs 950 full-time faculty and 850 sessional instructors, 2,300 administrative and support staff, as well as 2,000 students in part-time jobs. With an annual operating budget of approximately $231 million, the University operates from four campuses. Two are located in St. John's (the St. John's campus and the Marine Institute), one is in Corner Brook (Sir Wilfred Grenfell College) and the fourth is in Harlow, England.

The only university in the Province and the largest in Atlantic Canada, it not only educates a large portion of our citizens but it also plays a central role in the life of Newfoundland and Labrador. Since its founding, Memorial University's mission has been to develop the intellectual, cultural, social and economic capabilities of our citizens and communities in every region.

As the largest research organization in Newfoundland and Labrador, Memorial University accounts for more than 60% of all the research and development undertaken in the Province. Current research projects range from the establishment of a home-based production industry for Atlantic Canadian hardy ornamental plants, to the development of an online, database-driven application for pharmacy and drug effectiveness research, the search for a cure for Parkinson's disease, and the preservation of the Innu language. External research funding granted to Memorial has increased steadily over the past decade, climbing to $73.9 million in 2003/04, an increase of 40% from the previous year.[21] The university expects to reach $100 million in research funding annually by 2010. Commercialization of research has grown, too, with the number of research-driven patents at Memorial increasing from 20 four years ago to 35 this past year.

Relationships with professional groups and local communities are essential for Memorial to deliver and expand programs; at the same time, the University has become an important partner in their success. Outreach programs, for example, offered by the Faculty of Medicine, the School of Nursing and the School of Pharmacy, have made invaluable contributions to the quality of our health care, especially in rural Newfoundland and Labrador. Institutes at Memorial also provide support services, such as business supports offered through the Genesis Centre or human resource training through the Centre for Management Development. Links to business and industry have enabled the University to develop innovative and relevant training programs.

While Government expects Memorial University to maintain its fundamental mission, we also recognize that today's world is more complex, more competitive and more interconnected than ever before. Our collective ability to embrace and master change depends upon our public post-secondary system. In meeting the fundamental aspirations of Newfoundlanders and Labradorians, Memorial University must continue to mobilize the creativity, skills and talents of our people. We must also meet the needs of our economy, in terms of trained and educated people, research and technology transfer. This requires a continuing commitment to excellence in all of the University's operations, including teaching and learning, research, student support services, employee development, outreach activities, community relations and alumni support.

6.1.1. Sir Wilfred Grenfell College

Sir Wilfred Grenfell College was established in 1975 by, and as a part of, Memorial University to improve access to post-secondary education in the western region of the Province. For its first 13 years, Grenfell College met this goal by providing a wide range of courses, on-campus during the day, at the first- and second-year levels, and a selection of senior courses for part-time students off-campus and by distance delivery during evenings. In 1988, Grenfell College introduced its first degree programs, in Fine Arts. Since then, additional degree programs have been established in arts and science areas. A Bachelor of Nursing degree is offered in collaboration with the Western Regional School of Nursing and two years of a five-year Science degree in Forestry and Environmental Science is offered in conjunction with the University of New Brunswick.

Sir Wilfred Grenfell also houses the new Institute for Biodiversity and Ecosystem Science. By supporting graduate research, the Institute will facilitate partnerships between industry and the academic community. Working with Sir Wilfred Grenfell and the Corner Brook campus of College of the North Atlantic, Government will build on the significant environmental industry activity underway in the western region of the Province by creating the Centre of Environmental Excellence in Corner Brook, and has allocated $0.5 Million in Budget 2005 for a master plan and feasibility studies. The Centre will secure the Province as an international leader in applied environmental research and development. Together, these institutes will advance the Province's priorities in the areas of natural resource conservation and sustainable use.

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[21] Memorial University of Newfoundland, *Memorial University of Newfoundland: Transforming Aspirations into Reality*, White Paper Submission, September 2004.

Today, Grenfell College has an annual enrolment of 1,100 students and offers a liberal education in arts and science and a professional education in Nursing, Theatre and Visual Arts. In addition, Grenfell College continues to accommodate first- and second-year students who wish to complete degrees at the St. John's campus of Memorial University or at other universities. To support the significant role this campus plays, it will be important to ensure its effective integration within the University.

We will

- **Request that the Board of Regents review the administrative and governance structure for Sir Wilfred Grenfell College to more appropriately reflect its maturing role within the University.**
- **Provide funding to enhance Sir Wilfred Grenfell's ability to offer new programming by increasing Memorial's budget as follows:**
  - **$1.0 Million for fiscal year 2005/06**
  - **$1.0 Million for fiscal year 2006/07**
  - **$1.0 Million for fiscal year 2007/08.**

6.1.2. Marine Institute

The Marine Institute (MI) is dedicated to education, applied research and technology development in support of ocean and marine industries. It has also evolved as a unique, world-class centre of advanced marine technology development, and is a Canadian "Centre of Excellence" in the pursuit of fisheries and ocean sciences, innovation and technology transfer. Additionally, cadet training at MI is world-renowned, with MI cadets having a competitive edge in the marine transportation industry. In 1992, MI joined Memorial and today this Institute continues its administrative and academic integration with the University.

Currently, MI is engaging in an extensive visioning exercise to position itself appropriately for future education, training and research in the ocean industries. This will help ensure that the Institute can respond appropriately to all stakeholders, including College of the North Atlantic, with which the Marine Institute has some programming similarities in the field of Engineering Technology, as well as shared laboratory resources. To support MI and its shared programming with College of the North Atlantic's Ridge Road campus, further study is required.

We will

- **Request that a review of the position of the Marine Institute within the context of our public post-secondary strategic plan be undertaken in consultation with Memorial University and College of the North Atlantic. The focus is to build on the international reputation of the Institute as a centre of excellence in marine and ocean technology and training.**

6.2. College of the North Atlantic

Recognizing that an educated population is the strongest foundation upon which to build this Province's future, Government has continually worked to ensure that our system of post-secondary education supports our social and economic development. Part of that effort has included the creation of our public-college sector.

Newfoundland and Labrador's first twelve vocational schools were constructed in 1963. Another six were built nine years later and, in 1976, the Bay St. George Community College was established. In 1980, the Crocker-Riggs Task Force report called for the development of a centralized, community-college system to be administered by the Department of Education. The system was established by dividing the Province into six community-college regions. The vocational schools were incorporated directly into the regions and the vocational school buildings became the primary facilities for the community colleges. Since that time, the public-college sector has undergone a number of changes to reflect the needs of the Province and our people. Its current structure was established in 1997.

Continuing to build on experience gained over 40 years, College of the North Atlantic offers nationally accredited programs to meet the needs of individuals, communities and industry. Central to its role as the Province's public college is the founding principle that its training programs should equip our workforce with the knowledge and skills to compete with the best in the provincial, national and international labour markets.[22]

With an annual operating budget of approximately $96 million, College of the North Atlantic currently offers 90 full-time programs and more than 300 part-time courses at campuses located throughout the Province. It also has a campus in the Middle East fully funded by the State of Qatar. The College employs approximately 800 faculty and 400 administrative and support staff during peak periods.

College of the North Atlantic has facilitated transfer agreements with other institutions such as Memorial University, Lakehead University in Ontario and the University College of Cape Breton in Nova Scotia. These agreements provide students with the option of continuing and completing university degree studies within one or two years of graduating from the College.

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[22] College of the North Atlantic, *Annual Report 2002-2003*, 2003.

The College, with its partners, plays a very strong role in contributing to social and economic prosperity in many communities. Throughout the Province, its faculty and staff serve on many local and regional committees and associations. College of the North Atlantic's contributions extend to incubating new businesses, developing prototypes, testing and analyzing products, and providing access to technology and state-of-the-art equipment.

The College occupies a unique position as the only provincial post-secondary institution with facilities in all regions of Newfoundland and Labrador. Government recognizes the importance of regional access to learning opportunities; however, it also understands that the Province's learning environment is changing.

Changing demographic and economic conditions, especially in rural Newfoundland and Labrador, are placing more demands on the public post-secondary system to offer high-quality and relevant programs that sustain regional economic growth and meet current and future labour-market needs.

A critical element of the Province's short- and long-term economic development policy is its commitment that the Province's post-secondary system, particularly its public college system, will continue to evolve to facilitate access to relevant programs and services at the community level.

We will

- **Implement a transition plan to align College of the North Atlantic with the Province's social and economic agenda, linking the College's geographic resources and infrastructure to socioeconomic initiatives. This will include linkages to the Province's Innovation Strategy and Comprehensive Regional Diversification Strategy.**

6.3. Education and Training for Health Professionals

Because today's health and community services system involves many disciplines, a collaborative and inter-disciplinary approach is essential. The physicians who provide diagnostic and primary care, the nurses who provide acute, primary and personal-needs care, the pharmacists who dispense medications and educate patients, the social workers who provide counselling and family interventions and the paramedics who provide emergency care, all work to meet the needs of our people. Each health-care professional is integral to good health.

Although Newfoundland and Labrador is similar to other Canadian jurisdictions with large rural populations, we face some additional challenges in training and retaining health professionals. According to *HealthScope 2004*,[23] 20.4% of the Province's population age 15 and over report difficulty accessing routine or on-going health care during any time of the day. This rate is 4% higher than the national average of 16.4%. Further, in 1979 the median age in this Province was 24.2 years; by 2003 it had increased to 39.3 years. Not only will our older population face more health issues and make more demands on the system, but the decline in the school-aged population will mean a smaller pool of potential students to be educated as health-care professionals.

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[23] *HealthScope 2004: Reporting to Newfoundlanders and Labradorians on Comparable Health and Health System Indicators*, Department of Heath and Community Services and the Newfoundland and Labrador Centre for Health Information, November 2004.

In 2003/04, 41.2% of Newfoundland and Labrador's total provincial expenditures was for health care. In 2001, the latest year for which comparable data are available, the Province's per capita expenditure on health care was $2,575, considerably higher than the national average of $2,193.

6.3.1. Medicine

Newfoundland and Labrador's Faculty of Medicine was established at Memorial University in 1967 and graduated its first medical doctor in 1973. It is funded by the Department of Health and Community Services at a cost of $26 million annually. The Faculty combines teaching, clinical practice and research in a hospital/community setting. Sixty students enter the Faculty annually, with the majority of places reserved for residents of Newfoundland and Labrador. Their course of study generally involves six years for family physicians and up to 10 years for those who choose other specialities. With 160 full-time and 280 part-time faculty members, as well as 493 medical staff, students are provided with learning opportunities encompassing all subject areas and all parts of the Province, including vital rural medical education initiatives.

The Faculty has the largest impact on doctor recruitment in the Province and we have done well retaining our graduates: 61% of provincial family physicians and 49% of specialists are graduates of this Faculty. In total, almost three-quarters of the Province's fully-licenced physicians are graduates of Memorial's Faculty of Medicine or have an attachment through their residency training. Residents assist with patient care and provide knowledge and services which are not generally present in a non-teaching hospital.

The Faculty of Medicine has research capabilities and, in 2003/04, it received $11 million in external research funding. Integral to the Faculty, medical research improves patient care through the use of new and leading technologies and provides economic benefits to the Province. It also aids in the recruitment and retention of specialists.

Our success attracting and retaining specialists is in large measure due to the teaching opportunities available within the Faculty. Hospitals are experiencing improvements in recruiting and retaining specialists, and, since 1999, the Province has had a net gain of specialists.

However, 40% of the Province's physicians are international medical graduates and enter the Province initially with provisional rather than full licensure, which allows them to practice medicine only within the Province. In the future, the draw for qualified physicians to leave the Province is expected to grow with an increasing shortage of physicians nationally and globally. Continued support for the Faculty of Medicine is critical to maintain the Province's supply of fully-licenced physicians, specialists and researchers.

6.3.2. Nursing

Registered Nurses. Today's nurses have many options to put their training into practice. Graduates of nursing degree programs work in nursing education, clinical practice and nursing research, with the ultimate goal of promoting health. Graduates of the Bachelor of Nursing (BN) program perform quite well in the labour market, with an employment rate of about 95%, one of the highest of all undergraduate degrees. Most of the Province's nurses are trained locally.

However, the Canadian Institute for Health Information, an independent, pan-Canadian organization, recently released a report showing that one in three Registered Nurses (RNs) in Canada is 50 years of age or older and the average age of an RN in Newfoundland and Labrador is 41.1 years. Additionally, 8% of the provincial nursing workforce was 55 or older. Consequently, a provincial, national and global shortage of nurses is anticipated within the next decade, and this may make it more difficult to retain our nurses and teaching faculty. This situation has required us to increase our numbers of nursing students to meet future demand.

At present, the administration of nursing education in the Province is fragmented. Three schools of nursing - the Centre for Nursing Studies (CNS), the Memorial University School of Nursing (MUNSON) and the Western Regional School of Nursing (WRSON) - each offer a four-year collaborative nursing baccalaureate program, which is the current minimum education requirement for entry into the practice of nursing. Both Memorial and Western Regional also offer a fast-track degree program option to students with previous degrees or advanced standing.

The Centre for Nursing Studies was established in 1996 by the then Health Care Corporation of St. John's (HCCSJ) following the amalgamation of hospital nursing schools. It is now funded by, and reports to, the Eastern Regional Integrated Health Authority. The Centre delivers primarily the Bachelor of Nursing (BN), the Practical Nursing (PN) and the Primary Health Care Nurse Practitioner programs. For the nursing program, students pay tuition to Memorial University, part of which is reimbursed to the Centre; Memorial retains fees for costs associated with students' non-nursing courses. The Centre's operating expenditures in 2003/04 were $4.4 million, provided by HCCSJ from its overall budget. The Centre for Nursing Studies has an intake of 120 students annually to the BN program and has 40 full-time faculty and numerous part-time faculty.

Memorial University School of Nursing also delivers the BN program, including a Fast Track and a Post-RN option which permits access to a nursing degree for those with some post-secondary training. A Master of Nursing program is also available and a PhD program is planned for 2007/08. This will be especially important within the next 10 years as 12 of the School's current 22 faculty retire. In 2003/04, operating expenditures for Memorial's School were $3.7 million.

Western Regional School of Nursing, based in Corner Brook, is funded by, and reports to, the Western Regional Integrated Health Authority. The School delivers the same Bachelor of Nursing program as Memorial and the CNS. First year enrolment is typically 50 students in the BN 4-year program. The school has 18 academic, clinical and laboratory faculty, three administrative faculty, and five support staff. As with the CNS, students pay tuition to Memorial and the nursing portion is reimbursed to the School. Students complete 31 nursing courses at Western and 12 non-nursing courses at Memorial's Grenfell campus. In 2003/04, operating expenditures were just under $2.0 million.

Under a consortium agreement, the BN (Collaborative) program curriculum is set by the University; however, day-to-day administrative matters are handled by the sites operating the programs. Specifically, aside from Memorial's School of Nursing, which falls under the governance of the University, these matters are under the auspices of the Eastern and Western Regional Integrated Health Authorities. With some duplication of both administrative and office staff at each site, this system of operation is both cumbersome and expensive.

Licenced Practical Nurses. Licenced Practical Nurses (LPNs) are an important component of health care, especially for Newfoundland and Labrador's seniors and people with disabilities. While some LPNs work in acute-care hospital settings, most work in seniors and rehabilitation facilities where long-term personal care is emphasised. In 2003, 36% of LPNs in Newfoundland and Labrador were employed on a casual basis.

The program is sixteen months in duration, offered primarily through the Centre for Nursing Studies in St. John's and brokered to College campuses throughout the Province, as required to meet labour-market demand.

Nurse Practitioners. Nurse Practitioners are Registered Nurses (holding either a diploma or a degree) who are trained to collaborate with other health-care practitioners to provide primary and acute-care services. These services include health assessment, diagnosis and health-care management of common and complex condition as well as population health and community development.

Programs of study for Nurse Practitioners are available at both the Centre for Nursing Studies and Memorial's School of Nursing. At CNS, the Nurse Practitioner Program is a 16-month certificate program available through the internet. Graduates practice within the guidelines set by the Nurse Practitioner Primary Health Care Regulations under the *Registered Nurses Act*. The Nurse Practitioner Primary Health Care program at CNS was developed in response to difficulties accessing health-care services in rural areas.

Memorial's School of Nursing offers the Master of Nursing - Nurse Practitioner (MN-NP) Degree and the Nurse Practitioner Diploma. These programs prepare nurses at an advanced level to practice as nurse practitioners in a variety of settings. These programs, in acute adult medicine and surgical care, in mental health and psychiatry, and in neonatal care, were developed to respond to gaps in patient care in specialized areas of practice.

6.3.3. Paramedicine

Paramedics are a specialized group of health-care professionals trained to provide emergency care under minimal supervision, usually outside of a hospital setting. The vast expanse of the Province and the distance to primary care facilities in rural areas make these emergency health-care providers essential to the health of the rural population.

In Newfoundland and Labrador, paramedics are trained by the Eastern Regional Integrated Health Authority, with funding from the Department of Health and Community Services. In providing this training, the Health Authority must meet national standards for paramedics while ensuring that the program responds to labour-market demands.

A lack of adequate teaching and laboratory space has challenged the ability to deliver paramedic training. It is estimated that a further 100 paramedics are required now so that the provincial standard of a paramedic on each ambulance can be met. Considering this demand, greater collaboration between health-care institutions and public/private agencies (e.g. regional fire departments, private ambulance companies) is required.

6.3.4. Pharmacy

Pharmacists are pharmaceutical care practitioners within the health-care system. They are employed within primary and long-term care institutions (hospitals, nursing homes, mental health institutions) as well as by private enterprises ("drug stores"). They provide health-care clients with the medications prescribed to them by physicians and advise the general public about over-the-counter drugs.

Memorial's School of Pharmacy is the only such institution in the Province, and operates from the Health Sciences Centre in St. John's. The first students entered the School in 1986/87, and it now has 116 students and 20 faculty and staff. It is governed by Memorial University as set out in the *Memorial University Act*. Operating expenditures for the School of Pharmacy in 2003/04 were $1.54 million.

The pharmacy program encompasses five years. Graduates have very good labour-market outcomes, with the majority finding employment before graduation. The School of Pharmacy is recognized nationally for its capabilities and the quality of its graduates.

6.3.5. Social Work

Within the scope of health care, the provision of counselling and family intervention services usually depends on social workers. Social workers are employed in primary-care health facilities, in long-term care facilities such as senior's homes and rehabilitative institutions, as well as within communities as part of our social safety-net programs.

The Bachelor of Social Work is a five-year program offered at Memorial's St. John's campus. Established in 1970, it is accredited by the Canadian Association of Schools of Social Work. The School of Social Work falls under the governance structure of Memorial University. Operating expenditures for the School of Social Work for 2003/04 were just over $2 million.

Memorial's Social Work graduates enjoy good labour-market outcomes, with the majority finding full-time training-related employment within a year of graduation.

6.3.6. Opportunities and Options for Education and Training

During the White Paper consultations, education and training for health professionals received significant attention and commentary. In particular, the administration of programs is seen as being disjointed. While the Schools of Pharmacy, Social Work and Nursing (Memorial) are governed by Memorial University, the remaining disciplines are split between the Eastern and Western Regional Integrated Health Authorities.

A more coherent approach to the administration of health-care education would be to integrate programs of similar discipline under an existing post-secondary institution, specifically Memorial University and College of the North Atlantic. Professional schools such as the School of Nursing, School of Pharmacy, School of Social Work and the Faculty of Medicine would fall under the governance of Memorial University. College of the North Atlantic, which already has a Health Science section serving the needs of medical technology programs, would be the appropriate administrative body for paramedicine.

Similar models are used within other Canadian universities, particularly those in Ontario. Queen's University and McMaster's Health Science Faculties include the medical school within the combined Faculty, while at the University of Ottawa the medical school is separate, more closely resembling the Dalhousie University approach. Either of these models (e.g. Queen's or Dalhousie) applied within the Newfoundland and Labrador context would be expected to reduce administrative costs and lead to greater collaboration among disciplines.

We will

- **Request Memorial University to assess the feasibility of establishing a Faculty of Health Sciences to include the Faculty of Medicine and the Schools of Social Work, Pharmacy and Nursing, with appropriate stakeholders. The appropriate placement of associated funding will be part of the discussions between Memorial University and the Departments of Health and Community Services and Education.**
- **Direct the Departments of Education and Health and Community Services, in conjunction with the Schools of Nursing and appropriate stakeholders, to discuss implementing a consolidated model that provides for the administration of nursing education, including continuing education and other programs such as the Practical Nursing program and the Nurse Practitioner program within Memorial University. The appropriate placement of associated funding will be part of the discussions between the Schools of Nursing and the Departments of Health and Community Services and Education, and Memorial University.**
- **Direct the Departments of Education and Health and Community Services, in conjunction with the appropriate stakeholders, to provide for the delivery of paramedicine training at College of the North Atlantic.**

6.4. Distance Education

The province has developed an international reputation in distance education and innovation, particularly for the creative and cost-effective delivery of programs and services. Beginning at Memorial University, the reputation and strength of the provincial distance education system has grown, and now includes K-12 and College of the North Atlantic. The key components of our present system are described below.

Distance Education and Learning Technologies (DELT) at Memorial University has three core components: distance education course production, distance education delivery and teaching support. In addition, Memorial is involved in activities which support the core functions of the University, and its resources support other organizations within and outside that institution.

Memorial currently offers 365 distance courses, more than half of which are provided online. Memorial's capabilities in distance education make it the largest provider among Canadian comprehensive universities. Overall enrolment in distance education has grown to the point that it now accounts for 10% of overall university enrolments. Full undergraduate degrees available via distance education include Business, Nursing, Technology and Maritime Studies. Graduate degrees include Education, Social Work and Nursing. A graduate degree in Coastal Zone Management is being developed.

Largely because of Memorial's long history in distance education, it still incorporates many older technologies. However, as its students make a transition to internet-based communications, the demand for services to the home has been increasing. Consequently, the University has made a deliberate attempt to go beyond the boundaries presented by a physical learning centre structure.

Distributed Learning Service (DLS) at College of the North Atlantic develops and delivers college credit courses and programs to students provincially, nationally and internationally. In addition, DLS engages in private-sector contracts for customized course development and faculty WebCT[24] training. College of the North Atlantic's DLS is one of only five certified Canadian WebCT Institutes and the only one in Atlantic Canada. WebCT courses are supplemented with real-time options, including video conferencing, web casting and live chat sessions among students and faculty.

Each year, learners from more than 250 communities access more than 200 College credit courses and programs through online learning. Beyond this Province, the College serves learners in all Canadian provinces and in other nations. Since 1999, there have been more than 12,000 DLS course registrations.

Centre for Distance Learning and Innovation (CDLI) is a division of the Department of Education with a mandate for distance education, online professional development and the integration of information and communication technologies within the learning environment. The distance education component has two major categories of activities: the development of online student resources for K-12 and the co-ordination and delivery of K-12 instruction. The Department provides distance education programming in 95 rural schools across the Province. To date, 36 online high school courses have been developed and delivered via the internet.

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[24] WebCT is a major commercial provider of e-learning systems for higher education institutions in several countries.

Its online professional development service also utilizes this infrastructure and benefits from a formal partnership with the Newfoundland and Labrador Teachers' Association (NLTA). The Department also has a formal partnership with Memorial that provides for back-end technical expertise and server capacity to support distance programs.

Newfoundland and Labrador's expertise and achievements in distance education are invaluable assets within a larger vision for learning in formal, informal and workplace contexts throughout the Province. The technologies, methodologies and capacities of distance learning can support and enhance an integrated and comprehensive approach to ensuring access to lifelong learning in our institutions, workplaces, communities and homes. However, the technologies must be capable, enabling and available where they are needed most.

The major public distance education providers in this Province are world leaders in the application of emerging communication and information technologies. They are thus uniquely positioned to provide strong leadership in internet technologies for education to both public and private sectors. Maximum benefit and efficiencies, however, will not be attained until there is a greater degree of shared vision and collaboration among them.

We will

- **Establish a committee consisting of the major players in distance delivery to identify opportunities for**
    - **stronger partnerships,**
    - **more sharing of expertise and resources, and**
    - **a more integrated educational system.**

  Specific areas to be addressed include connectivity, software and license purchasing, curriculum development and equipment use.

6.5. Rural and Economic Development

The Genesis Centre, located on the St. John's campus of Memorial University, is an important asset for rural and economic development. It functions as a support network to assist Newfoundland and Labrador knowledge-based businesses and entrepreneurs establish and develop high-growth enterprises. Clients are paired with world-class mentors who bring knowledge and experience managing advanced technology industries. These mentors volunteer their time and contacts to the entrepreneurs, providing assistance with both personal and business development, ranging from strategy to operations.

One of the many functions of the Genesis Centre is to help entrepreneurs build on their knowledge in key management areas. The Centre helps clients develop their business plans and assists with time-consuming activities such as market research and operational planning. The Centre also helps clients gain access to the physical, technical and scientific resources of Memorial University. These include expertise and physical assets in such areas as Engineering and Ice-Engineering, Chemistry, Business, Medicine and Computing Services. Video-conferencing and the internet link the Centre to non-resident clients and the Centre's global network of mentors. The cost of services is covered by the client, but the Centre can help clients find research financing.

Admission to the Genesis Centre is competitive and restricted to entrepreneurs and businesses pursuing technology-based opportunities with high growth potential. Admission is based on an assessment of the entrepreneur, the technology and the business's growth prospects. Genesis clients have the potential to achieve multimillion-dollar annual revenue within a few years of commercialization and this economic development provides significant benefit to the Province.

We will

- **Require our post-secondary institutions to work with industry to explore the creation of facilities based on the Genesis Centre concept in regions throughout the Province, with immediate attention to Corner Brook.**

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7. Strategies for Helping Students

During the White Paper consultation process, Government was told of the need for a more student-centered system in Newfoundland and Labrador. Students are of primary importance to our post-secondary education system: they are why the system exists, and their achievements reflect the success of our educational institutions. Helping students and ensuring that they have access to the services they require to succeed must be a cornerstone of any plan for our post-secondary education system. The system must also recognize the importance of services to students, and work to create an environment that encourages learning and is comfortable for all who participate.

During the consultations, participants stressed the need for a true system approach to post-secondary education, one that ensures greater collaboration among the public institutions in the areas of planning, service delivery and sharing of resources and facilities, and allows students to move easily within the system. Programs should be integrated, avoid duplication and provide for transferability.

7.1. Student Services

Access to appropriate student services is critical. For many students, the services provided determine how they interface with their institution and with the post-secondary education system. The primary function of student services is to help establish and sustain an environment in which students can learn and develop. Increased collaboration in planning, providing services and sharing resources and facilities has been identified as necessary for a student-centred system.

Student services professionals are available at each College campus to assist students with personal and career development, financial planning, student governance and other academic and non-academic issues. Memorial University offers similar services. Both institutions working together could share ideas, collaborate on professional development opportunities, and better resolve student services issues for the benefit of both the institutions and our students.

Students would benefit if Memorial and the College implemented Electronic Data Interchange (EDI) between the institutions. Coupled with the web-based version of the Transfer Credit Guide, this will greatly expedite the processing of transfer credits, allowing students to make better-informed decisions.

We will

- **Establish a system-wide public Post-Secondary Student Services Advisory Committee to enhance cooperation and improve services for students.**
- **Improve the timely transmission of student data from one institution to another and to the Department of Education to enhance student services.**

7.1.1. Student Recruitment and Academic and Pre-enrolment Advising

Memorial's Office of Student Recruitment provides undergraduate recruitment services for the University. The office focuses on provincial, national and international markets and conducts school visits, career fairs, and parent and community information visits. College of the North Atlantic also focuses on provincial, national and international recruitment. Like Memorial, recruitment activities include high school visits, career fairs and open houses.

Pre-enrolment, in person or via e-mail, is provided to all new University applicants and is delivered jointly by the Registrar's Office and academic units. The College also has a formalized pre-enrolment advising process for all new students that includes group and individual interviews. Additional advising services are provided at both institutions after students are enrolled.

Currently, Memorial coordinates with the College to provide information for pre-enrolment advising, academic advising, course selection and program and course changes with respect to the College-University Transfer Year program. College of the North Atlantic staff are provided with a copy of Memorial's *Guide to First Year* to assist with advising activities.

The following actions would enhance the collaborative activities currently being undertaken:

- Consolidating, where feasible and appropriate, the technology used to disseminate information (e.g. development of a website with mutual links).
- Optimizing, where appropriate, resources when recruiting, especially out-of-province. Recruitment staff from either institution could attend recruitment events and distribute materials for both. Other coordinated recruitment activities might include developing a provincial post-secondary Career Fair or a joint campaign to encourage students to stay in Newfoundland and Labrador to pursue post-secondary education.

7.1.2. Prior-Learning Assessment and Recognition (PLAR)

Available at all College of the North Atlantic campuses, PLAR is a process that allows an individual to demonstrate prior learning (experiential, non-credit and informational) with the aim of receiving credit towards a post-secondary course or program. Since increasing numbers of people are entering post-secondary institutions to be re-trained or re-educated to meet the demands of the changing workforce, PLAR is viewed as an effective way for the College to assess prior learning. Increased collaboration between Memorial and the College will help to ensure that all prior learning is recognized.

We will

- **Increase collaboration in student recruitment and advising activities between Memorial University and College of the North Atlantic.**

7.1.3. Co-operative Education Services

Students enrolled in co-operative education programs at College of the North Atlantic or Memorial University have access to a Student Development Officer/Coordinator who assists them in securing the work terms required for graduation. Specifically, these officers market students and programs to employers, assist in all aspects of the work term search process and monitor work terms as they occur.

Memorial's Co-operative Education Services Centre acts as an incubator for new University co-op programs and houses the co-operative education coordinators for the Faculties of Arts and Science. As the centralized support for all co-operative education programs, it assists in program marketing, coordinating funding proposals and interview scheduling.

7.1.4. Career and Employment Services

Both the College and the University provide career and employment services to students and alumni. Available at all campuses, students can use these services to enhance their employability and to obtain assistance in their transition from school to work. Both institutions also provide a web-based employment service to students, alumni and the employer community (http://ces.cna.nl.ca and http://www.mun.ca/ccd). By giving Memorial's students access to the College's resources, and vice-versa, career employment services for post-secondary students could be further enhanced.

We will

- **Enhance current levels of career employment services for post-secondary students through increased co-operation between Memorial University and College of the North Atlantic.**

7.2. Disability Services

College of the North Atlantic and Memorial University have seen an increase in the number of students with disabilities in recent years. Both institutions have developed and are currently using models which deal with disability issues specific to their needs.

Disability services currently available at Memorial University and at several College campuses include:

- quiet, supervised, separate places for testing,
- scribes,
- print readers,
- examinations in alternative form (e.g., oral examinations, use of scribe or note-taker, audiotape, Braille, etc.),
- information for applicants and registrants in alternative forms,
- adapted schedules and timetable adjustments.

While each institution has different needs for disability services, further collaboration between the two and with other agencies is needed to provide maximum service to students. One way to achieve this would be to establish an advisory committee with representatives from both institutions and from other agencies involved in supporting students with disabilities. This committee would meet regularly to review current models, determine how to enhance services where feasible, and identify specific opportunities where the College and University can work together.

We will

- **Establish a collaborative service and support model which partners public post-secondary institutions with other agencies involved in supporting students with disabilities.**

7.3. Student Housing

The College currently operates three residences (Burin, Bay St. George and Happy Valley-Goose Bay). Memorial has residences at its campuses in St. John's, Corner Brook and Harlow. An arrangement between the two institutions allows housing for College students at Memorial if space is available. Memorial University and College of the North Atlantic currently have a Memorandum of Understanding which acknowledges that increased accessibility to student housing for post-secondary students could be achieved through the development of new common residences. While there would be equal opportunity for students from both institutions, preference could be given to students moving from rural communities.

We will

- **Request that our institutions explore opportunities for collaboration to enhance access to student housing, including possibilities for common residences.**

7.4. Library Services

Memorial University's Queen Elizabeth II Library is a crucial resource for students, faculty, staff, alumni and other research activities in the Province. On a typical day, 5,000 or more patrons enter the QE II Library. Because the library has adapted aggressively to the use of digital information, many other individuals can access its resources remotely. While the QE II functions as the Province's primary research library and has a budget comparable to that of Grenfell College or the Marine Institute, it is not well-connected with some of the Province's other information systems. Better integration could make a substantial contribution to meeting the needs of Newfoundland and Labrador communities.

We will

- **Establish a Working Group of the Department of Education, Memorial University, College of the North Atlantic and the Public Libraries Information and Resource Board to identify opportunities to enhance the use of the Queen Elizabeth II Library at Memorial by other communities and library structures within the Province.**

8. Strategies for Maintaining Stable Funding

The benefits of a growing, dynamic, comprehensive post-secondary system are considerable, and it is a basic prerequisite for the development of a progressive, economically-sound province. Funding ultimately determines the size, nature and quality of our educational institutions. Our vision for post-secondary education, today and into the future, is predicated on funding which is stable and predictable. However, this vision has far-reaching financial implications.

The benefits of our system, the challenges we face, and the many other issues discussed in this White Paper, must be weighed together as we consider post-secondary education funding, both for our institutions and for future students.

8.1. Government's Investment

Government's aim is to work towards ensuring equitable access for all and that post-secondary studies are affordable. The availability of debt reduction grants, based on both academic progression and high debt loads, has ensured that those who need to borrow more receive the greatest amount of debt relief. This program will continue.

Another important initiative has been holding the line on tuition costs. Between 2001/02 and 2003/04, Newfoundland and Labrador was the only province to reduce university tuition fees. All other provinces raised tuition or maintained existing fee levels during this period. Despite these tuition levels, university enrolment has increased in all provinces (see Table 8.1). In New Brunswick, for example, tuition rose by 18.5% and enrolment by 6.2%. In Alberta, tuition increased by 35.2% while enrolment grew by 12.4%.

Table 8.1: Enrolment and Tuition, Canadian Provinces, 1998/99, 2001/02, 2004/05

Province	Tuition			% Tuition Increase		Full-Time Enrolment		Enrol. Increase 1998/99 - 2001/02
	1998/99	2001/02	2004/05	1998/99 2001/02	1998/99 2004/05	1998/99	2001/02	
NL	3,300	2,970	2,550	-10.0%	-22.7%	13,115	14,160	8.0%
PEI	3,331	3,690	4,350	10.8%	30.6%	2,470	2,785	12.8%
NS	3,910	4,742	5,824	21.3%	48.9%	30,027	32,745	9.1%
NB	3,306	3,916	4,829	18.5%	46.1%	18,529	19,680	6.2%
PQ [1]	1,670	1,670	1,670	0.0%	0.0%	134,162	144,010	7.3%
PQ [2]	3,070	3,837	4,536	25.0%	47.8%	--	--	--
ON	3,523	4,073	4,326	15.6%	22.8%	229,985	254,190	10.5%
MB	2,975	2,939	3,014	-1.2%	1.3%	20,883	24,825	18.9%
SK	2,937	3,825	4,269	30.2%	45.3%	23,656	24,260	2.6%
AB	3,339	4,514	5,209	35.2%	56.0%	53,510	60,165	12.4%
BC	2,373	2,266	4,058	-4.5%	71.0%	54,039	58,815	8.8%

[1] Tuition for students native to Quebec.

[2] Tuition for Canadian students not native to Quebec.

Today, tuition at Memorial University is the lowest in Atlantic Canada and, with the exception of the rate in Quebec for Quebec residents only, the lowest of any province (see Table 8.2). Compared to Memorial University's average tuition rate, the Maritime Provinces' rate is more than double.

Nova Scotia, Ontario and several other jurisdictions have recently taken measures to regulate and/or cap tuition increases. In Nova Scotia, the provincial government has signed a three-year agreement with its universities to allow increases of no more than 3.9% annually for most programs, to account for the cost of living. By the last year of this three-year agreement, universities in Nova Scotia will be receiving $34.6 million more a year from government than in 2004/05 to offset tuition increases. In Ontario, the government announced a tuition freeze to take effect in September 2004 with institutions being compensated for increases that would have occurred had the freeze not been implemented.

Table 8.2 Provincial Ranking of Tuition 2004/05

Province	Arts and Science Undergraduate		Public College	
	Tuition	Rank[1] (1 = lowest)	Tuition	Rank[2] (1 = lowest)
NL	2,550	1	1,452	2
PEI	4,350	6	3,250	9
NS	5,824	9	2,400	4
NB	4,829	7	2,500	5
PQ (Quebec Students)	1,668	--	0	--
PQ (Cdn. Non-Quebec)	4,536	--	n/a	n/a
ON	4,326	5	1,820	3
MB	3,014	2	1,292	1
SK	4,269	4	3,156	8
AB	5,209	8	3,089	7
BC	4,058	3	2,720	6

[1] Quebec was not ranked because of its two-tier tuition policies.
[2] Quebec was not ranked because of differences in definition of public college.
Source: Manitoba study of College tuition, June 2004

At the community college level, too, the Province enjoys the lowest tuition of all the Atlantic Provinces ($1,452), with the next lowest rate being Nova Scotia's. At $2,400, their fees are 65% higher than College of the North Atlantic's. We also have the lowest tuition rates in Canada after Manitoba ($1,292) and Quebec (where college is an extension of secondary school and a prerequisite to university attendance).

We will

- **Provide Memorial University and College of the North Atlantic with sufficient funds to maintain a tuition freeze for a three-year period for domestic students. In lieu of tuition increases, Government will provide increased funds to the institutions, budgeted as follows:**
  - **$4.3 Million for fiscal year 2005/06**
  - **$8.9 Million for fiscal year 2006/07**
  - **$12.4 Million for fiscal year 2007/08.**

A further measure of commitment to educational spending is the average amount allocated (i.e. transferred to the education system) by government for each full-time equivalent (FTE) student enrolment. In spite of our fiscal challenges, Newfoundland and Labrador has maintained a strong level of transfers, and Government sees this as a strategic investment for our future. As indicated in the following table, this Province's transfer per FTE in 2002/03 was comparatively high.

Table 8.3: Provincial Government Transfers ($) to Colleges and Universities per Full-Time Equivalent Student, and Rank, 2002/03

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	Cdn Ave.
$	10,009	7,275	5,698	6,376	10,603	8,582	13,562	14,593	10,279	10,722	9,831
Rank	6	8	10	9	4	7	2	1	5	3	-

Source: Statistics Canada

As Figure 8.1 shows, Government is the greatest contributor to higher education funding. In 2004/05, the annual grant to Memorial University was $164 million and the grant to College of the North Atlantic was $47 million.

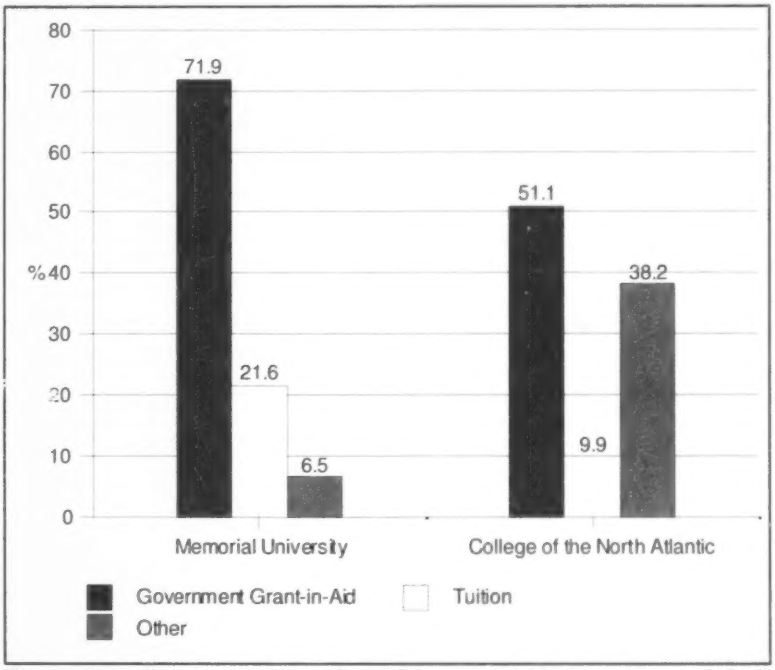

Figure 8.1: Sources of Funding, Memorial University and College of the North Atlantic, 2003/04

Even though our support for post-secondary education has been strong, the Province's public post-secondary institutions have been challenged to meet ever increasing operational costs. This has often required deferring other spending, such as for maintenance, upgrading and purchasing new equipment. While the 2004/05 grants decreased compared to 2003/04, they did cover negotiated salary increases and some deferred maintenance costs. However, the institutions need continued access to sufficient resources to maintain their status as a comprehensive one university-one college system.

Changes in faculty labour markets are affecting many aspects of the current post-secondary system as a large number of faculty hired in the late 1960s and the 1970s retire. In Canadian universities today, one-third of faculty members are 55 or older, and half are between 40 and 54 years. This rapidly-aging professoriate combined with a growing post-secondary system means that Canadian universities will have to recruit at least 30,000 new faculty members by 2011. Canada does not produce enough PhD graduates to meet this need, and while increasing the number of graduates will be of assistance in the long term, in the shorter term, institutions will need to seek top academic talent from around the world.[25]

Memorial is facing these human resource challenges today. The average age of its regular full-time faculty is 51.7 years.[26] From 2007 to 2012, the University will need to hire at least 40 faculty a year to maintain its current complement. At College of the North Atlantic, the median age for full-time faculty is 44 years, close to the national average of 45 years,[27] but 67% are 40 or older.

As recruitment occurs in an increasingly competitive market, both Memorial University and the College will have to be more concerted in their plans to find and retain personnel. A higher rate of faculty renewal is needed in both public institutions to ensure continuity, the transfer of accrued experience and the preservation of institutional memory. These factors are important in order to continue providing high-quality education to students, and ultimately to support the economic transformation of the Province.

Factors affecting recruitment and retention success include competitive salaries, availability of modern infrastructure and research facilities, and funding support. The quality of faculty, facilities and funding also affects students' choices of institutions.

8.1.1. Memorial University

From 2000 to 2004, Memorial's provincial operating grant (grant-in-aid) increased by 43.5%. However, its operating expenditure rose by 46.3%. Salaries, which in 2000 accounted for 75.9% of total expenditure, increased to 80.1% in 2004.[28] While other institutions across Canada have been raising tuition to offset inflation costs, Memorial University has not, which means that it has not been able to generate new revenues.

Despite the salary increases, in 2004, compensation for Memorial's faculty ranked third lowest among comprehensive universities (universities with a significant amount of research activity and a wide range of programs at the undergraduate and graduate levels, including professional degrees). Out of 11 universities, Memorial ranked ninth in recruiting faculty who have a PhD (Figure 8.2).[29] As competition from institutions both within and outside Canada intensifies further, this will have important implications for how we secure an adequate teaching workforce for the future.

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[25] *Canada's Universities: A Strong Foundation for Innovation*. Brief to the House of Commons Standing Committee on Finance by the Association of Universities and Colleges of Canada, September 9, 2002.
[26] Memorial University of Newfoundland, *Strategic Human Resource Issues at Memorial University*, October 2002.
[27] Statistics Canada, *Annual College and Related Institutions Educational Staff System*, 2004.
[28] Memorial University Audited Financial Statements 2000 and 2004.
[29] "Universities 2004" (Annual publication of selected university statistics), *Maclean's*, November 2004.

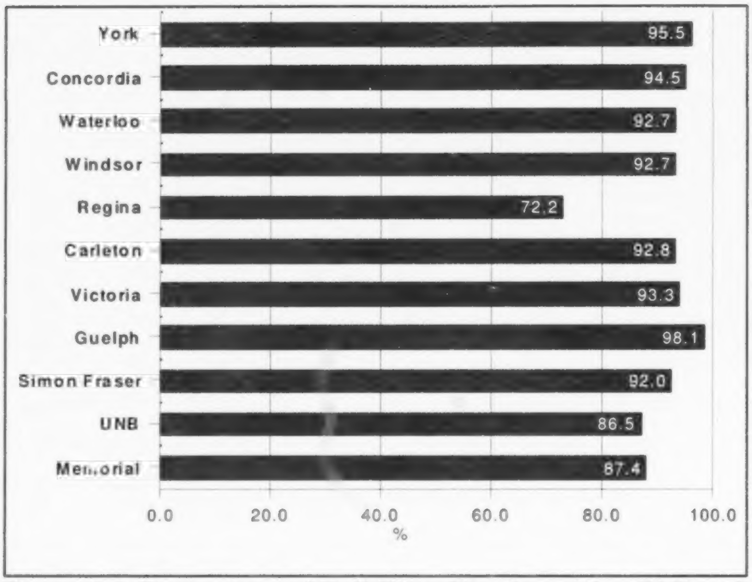

Figure 8.2: Percentage of Full-Time Faculty with a PhD at Selected Canadian Universities, 2004
Source: *Maclean's* 2004

For undergraduates, the classroom is the front line for learning. Memorial has a first-place rating for first-year class size: 47.1% of Memorials' first- and second-year students are in larger-sized classes (51-500 students), while the median for all comprehensive universities is 67.6%. First-year students are not the only beneficiaries of smaller class size. Memorial University also ranks third in class size for third- and fourth-year students. This is a reflection of decisions in the 1960s to design classrooms for relatively small student-faculty ratios in an effort to maximize student success. Memorial ranks first among comprehensive universities for its overall full-time equivalent (FTE) student-to-faculty ratio of 17.8:1. The median ratio for all comprehensive universities is 25.1:1.

Memorial University has a significant reliance on revenue from Government. However, for Memorial to grow, evolve and remain competitive with other comprehensive universities, it requires stable and predictable funding for faculty recruitment.

We will

- **Provide Memorial University with sufficient revenue to address operating needs through an increase in its grant-in-aid, budgeted as follows:**
  - **$3.3 Million for fiscal year 2005/06**
  - **$7.2 Million for fiscal year 2006/07**
  - **$7.2 Million for fiscal year 2007/08.**

8.1.2. College of the North Atlantic

College of the North Atlantic derived 51% of its $96 million in revenue from Government's grant-in-aid in 2003/04. Unlike Memorial, student fees account for considerably less of the College's revenue, owing to lower tuition costs.

A study of nine Canadian colleges reported that College of the North Atlantic's operating cost per full-time equivalent student ($10,361 in 2001/02) was among the highest in the country,[30] a reflection of the delivery model which supports 17 campuses serving a vast geographic area.

College of the North Atlantic students enjoy a relatively low student-to-instructor ratio (13.3:1), compared to students in the other colleges included in the study (16.5:1). Since College enrolment is dispersed among many campuses across the Island and Labrador, it is not surprising to find small classes.

The College is also facing challenges in recruiting human resources. In spite of aggressive recruitment efforts, several positions remain hard-to-fill, including Engineering Technology instructors and some positions at the Happy Valley-Goose Bay campus.

We will

- **Provide College of the North Atlantic with sufficient revenue to address operating needs through an increase in its grant-in-aid, budgeted as follows:**
  - **$1.6 Million for fiscal year 2005/06**
  - **$2.1 Million for fiscal year 2006/07**
  - **$2.8 Million for fiscal year 2007/08.**
- **Provide funding to College of the North Atlantic to upgrade equipment, budgeted as follows:**
  - **$1.0 Million for fiscal year 2005/06**
  - **$1.0 Million for fiscal year 2006/07**
  - **$1.0 Million for fiscal year 2007/08.**

8.2. Infrastructure Requirements

History and structural factors have combined to create a significant and growing challenge for post-secondary infrastructure in Newfoundland and Labrador, as they have in the other Atlantic Provinces. Deteriorating facilities can affect quality of education as well as an institution's ability to market itself to students and faculty. Repair, maintenance and regeneration of physical infrastructure are essential components of an effective post-secondary system. Replacing, updating and modernizing equipment and physical plant are also essential to support new modes of education and research. It is critical that infrastructure investment occurs in a consistent and timely fashion.

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[30] Canadian Colleges and Institutes, *2002 Resource Allocation Benchmarking Study*, KPMG Chartered Accountants, 2002.

Both the University and the College face significant challenges in raising and allocating funds to meet infrastructure costs. With 125 buildings on four campuses to maintain and support, Memorial's current deferred maintenance costs are in the millions of dollars. In addition, deferring maintenance costs more in the long term. The Board of Regents has proposed to generate revenue for infrastructure requirements by engaging partners to invest in the University and providing financial incentives for such investments. A matching capital fund-raising campaign is one such means.

College of the North Atlantic has significant infrastructure issues, as many of the buildings it uses were constructed in the 1960s and 1970s and capital equipment in computer-based training and industrial trades is now aging or becoming obsolete. Infrastructure capacity is also affecting some campuses, especially those offering engineering technology programs and those with large numbers of Aboriginal students, since both of these areas are showing growth in enrolment.

To accommodate its Labrador West Campus, the College leases the former Notre Dame Academy from the Roman Catholic Episcopal Corporation of Labrador. However, the space required for its operations is less than what is currently available. As a result, alternative space options will be explored.

Since 1999, the College's Happy Valley-Goose Bay campus has been operating above capacity. It has seen an increase in students and programs, particularly during the last three years, and projections indicate this will be a future growth area for post-secondary education.

The College's Prince Philip Drive campus accommodates the largest number of the institution's full-time and part-time students. It is the administrative centre for the St. John's campuses as well as the provincial centre for some College divisions. The campus was constructed in 1963. Unlike most public buildings, including all other College campuses, it is maintained using the College's annual operating budget allocation. Until 1995, campus modifications primarily involved renovations related to programs and routine maintenance. Since 2000, this building has been undergoing a major retrofit. Remaining renovations are estimated to cost several millions of dollars.

We will

- **Support an infrastructure fundraising campaign for Memorial University and College of the North Atlantic by matching dollar for dollar private-sector contributions, budgeted as follows:**
  - **$3.0 Million for fiscal year 2005/06**
  - **$3.0 Million for fiscal year 2006/07**
  - **$3.0 Million for fiscal year 2007/08.**
- **Ensure the physical space available for College of the North Atlantic's Labrador West campus is suited to the programming needs of the community and its employers.**
- **Encourage federal investment in post-secondary infrastructure renewal to support our economic growth, particularly in knowledge-based industries.**

8.3. Research Capacity

Memorial's unique contribution to the intellectual, social, economic and cultural development of this Province is founded in part on its research capabilities and expertise. As the largest research organization in Newfoundland and Labrador, Memorial accounts for more than 60% of all research and development activity in the Province. To support Government's aim of developing a more diversified, knowledge-based economy, it is imperative that this Province's only university continue to build a world-class research environment.

Research, both basic and applied, is the foundation of the value-added products and services that characterize a knowledge-based economy. A strong and vibrant research environment enables the recruitment and retention of bright minds, attracts knowledge-based industries and fosters the formation of innovative companies. Research itself is also a significant economic generator, providing jobs that are attractive and rewarding.

The Government of Canada has committed to doubling research funding by 2010 as part of the Federal Innovation Strategy. Memorial University is therefore expected to increase considerably its federally-sponsored research over the next five years. However, federal research programs, most notably the Canada Foundation for Innovation, provide only 40% of total project funding. The remaining 60% must be secured from other sources. Most provinces now provide dedicated funds[31] to match federal contributions for projects that have been peer-reviewed and approved by a federal granting agency (yielding a further 40%). The remaining 20% is normally secured from the private sector.

Memorial has been very successful in increasing research revenues in recent years. The University must continue this growth if it is to meet the aspirations of the people of Newfoundland and Labrador, including realizing the objectives of the Provincial Innovation

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[31] In the Province, the Industrial Research and Innovation Fund often serves this role.

Strategy[32] and positioning Newfoundland and Labrador for prosperity within the global knowledge-based economy. Continued growth at Memorial will also ensure benefits to Sir Wilfred Grenfell College and the Marine Institute, allowing them to build stronger research capacities relevant to the specific needs and opportunities of the areas they serve.

College of the North Atlantic's Office of Applied Research has strengthened its ability to reach out to both communities and industry. Working with its partners, the College continues to create new opportunities and foster innovation at the local and national levels.

Until 2001, the federal government covered only the *direct* costs of research supported by its three major funding councils (the Canadian Institute for Health Research, formerly known as the Medical Research Council of Canada, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada). Direct costs include the salaries and benefits of research personnel, materials and supplies, travel, equipment and the purchase of specialized services. They do not cover the indirect costs of research, which includes, for example, building use and depreciation, equipment depreciation, physical plant and maintenance, insurance, research administration, financial administration, academic administration, human resource services and libraries.

In 2001/02, the federal government implemented the $200 million Indirect Costs of Research (ICR) program, from which Memorial received $3.8 million in 2003/04 (calculated as 32% of total tri-council research funding). A 1996 study by the Association of Universities and Colleges of Canada (AUCC) and Industry Canada calculated, based on 1984 data, that indirect research costs for all universities was 42.7% of direct costs. Memorial University's costs were calculated to be 38.8%.

The indirect costs of research at post-secondary institutions are real and any shortfall between the actual costs and what is funded by the ICR program must be covered from within the institutions' budgets. This has long-term consequences for their overall financial situation.

We will

- **Support the Industrial Research and Innovation Fund by providing matching and start-up funds that will attract further federal investments in research at Memorial University and College of the North Atlantic, budgeted as follows:**

  - $5.0 Million for fiscal year 2005/06
  - $7.5 Million for fiscal year 2006/07
  - $10.0 Million for fiscal year 2007/08.

  These funds will help position the University and College to play a key role in supporting the Province's Innovations Strategy.

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[32] The Innovation Strategy is intended to capitalize on opportunities to diversify the economy and enhance employment opportunities for Newfoundlanders and Labradorians.

- **Pursue additional federal contributions so that the indirect costs associated with research supported by federal granting councils can be adequately funded.**

8.4. Personal Investment

Participation in post-secondary education requires a considerable investment by the student. However, the investment is generally a profitable one since, on average, post-secondary graduates enjoy higher employment rates and wages. It is therefore not surprising that the most recent survey of our post-secondary graduates[33] indicated that 79% of Memorial University graduates and 81% of College of the North Atlantic graduates were satisfied with their financial investment in their education.

For students, participating in post-secondary education comes with many expenses besides tuition, including the cost of food and shelter, books and transportation. As previously indicated, tuition represents a relatively small portion of post-secondary education costs and is not a primary contributor to high student debt. A 2004 Canadian-US study[34] explored this issue in detail. It concluded that an increase in tuition does not necessarily result in a decrease in enrolment. The more important factors are

- the extent to which there are lower cost post-secondary choices available to students in the jurisdiction;
- the extent to which students in the jurisdiction value post-secondary education;
- the extent to which post-secondary capacity constrains or allows increases in enrolment;
- the demographics of the jurisdiction.

A recent report[35] from the Montreal Economic Institute corroborates this. Using data from all ten provinces, it found that despite having the highest tuition in Canada, Nova Scotia also has the highest enrolment of 20- to 21-year olds. At Dalhousie University, enrolment has been increasing at a time when tuition rates are also increasing.

In contrast, Quebec, with low tuition for resident students, had among the lowest enrolment rates. The report argues that post-secondary participation is a sociological consequence, and that even if education were free, young people from underprivileged and less-educated backgrounds would be less inclined to continue on to post-secondary studies. The reasons might include low grades, parents' educational backgrounds and parents' educational expectations for their children.

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[33] CareerSearch, *Employment Experience and Earnings of 2002 Graduates, Newfoundland and Labrador*, Department of Education, 2004.

[34] Swail, Watson Scott and Donald E. Heller, *Changes in Tuition Policy: Natural Policy Experiments in Five Countries*, Canada Millennium Scholarship Foundation, 2004.

[35] Kozhaya, Norma, *Would Higher Tuition Fees Restrict Access to University Studies?* Montreal Economic Institute, February 2004.

Still, increases in tuition remain an important issue for students. The Canadian Federation of Students maintains that "the impact of higher fees [is] most discernible in terms of exacerbating inequalities in access".[36] They point to the decline in median family income in the 1990s and conclude by saying that decreased buying power has made it more difficult for students from low-income families to afford a post-secondary education. This view is supported by a 2004 study on the impact of paying for college or university prepared for the Canada Millennium Scholarship Foundation.[37] Based on the available data, the study concluded that

- the participation gap between low-income and middle-income students widened in the university sector in the 1990s;
- low-income students are more sensitive to changes in the net price of post-secondary education;
- unmet need is an issue for low-income students;
- rural and low-income students may be choosing shorter programs in the college and technical sectors, in part because of lower costs.

The latter point is especially important in light of the evidence that shorter programs have less favourable labour-market outcomes than those of longer duration.

The Province is working with the federal government and other provinces to review options to encourage savings for post-secondary education.

8.5. Student Financial Assistance

Students finance their post-secondary education using many sources of support. Some apply savings from employment, others draw on family and parental support, others access education savings programs, while others take out government-sponsored student loans. In recent years, student use of government-sponsored student loans has been falling. Currently, 48.9% of the students attending Memorial University finance their educations using the government loan program; at College of the North Atlantic, 24.1% of students use such loans (Table 8.4). However, in 2003-04, 38% of Memorial University students and 12% of College of the North Atlantic students using the program, borrowed at the maximum allowable levels.

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[36] Canadian Federation of Students, Submission to the Newfoundland and Labrador White Paper on Post-Secondary Education, 2004.

[37] Hemingway, Fred and Kathryn McCullen, *A Family Affair: The Impact of Paying for College or University*, Canada Millenium Scholarship Foundation, June 2004.

Table 8.4: Use of Government Student Loans (% of all Students) at Memorial University and College of the North Atlantic, 1999/00 to 2003/04

Institution	1999/00	2000/01	2001/02	2002/03	2003/04
Memorial University	62.3%	57.8%	54.4%	51.1%	48.9%
College of the North Atlantic	36.0%	30.6%	28.7%	24.6%	24.1%

Because the costs of post-secondary education have risen steadily in the last decade, assistance levels have proven inadequate in recent years. The federal government addressed this in its March 2004 budget. It noted that federal student loan limits had not increased since 1994 and that in the 2001/02 loan year, 44% of borrowers were at the maximum limit. This represented a 33% increase of students at this level since 1999/00. In addition, the average amount of unfunded need in 2001/02 was $3,500 per borrower after federal and provincial assistance was provided.

While there was initially some concern that increasing loan levels would raise debt levels and thus default rates for some borrowers, program statistics indicate that this has not been the case. It was determined that loan size was not significantly correlated with repayment problems; rather, lack of employment and non-completion were the primary predictors of repayment difficulties.

The Debt Reduction Grant Program, implemented in August 2002 by the Provincial Government, provides grants to students upon graduation from a post-secondary institution. This program was developed to assist those students who, because of financial need, borrowed at the upper limits. If a borrower qualifies, arrangements are made to reduce or eliminate the principal amount of the provincial loan. Under the Debt Reduction Grant Program, it is possible for most of the Newfoundland Student Loan debt to be paid fully by the Provincial Government, leaving only the debt incurred through the Canada Student Loans Program.

Federal and provincial governments have also been concerned about the slowing growth in post-secondary participation among middle-income families. From 1993 to 1997, university participation among those with parental income between $50,000 and $70,000 and between $75,000 and $100,000 decreased by 4% and 8% respectively. An element in this negative trend was an expectation, within the structure of government loan programs, that parental contributions would be high for this group, but this was not the case. Research by the Canadian Millennium Scholarship Foundation confirmed that parental contributions to post-secondary education costs were significantly lower than expected. While average parental contributions of $11,000 to $15,000 were anticipated, just $2,500 to $4,000 a year were realized.

In its 2004 Budget, the federal government announced a package of initiatives, including increasing federal loan limits from $165 to $210 per week, reducing parental contribution rates to allow more middle-income families to access the program, and a 5% increase in income thresholds in order to qualify for interest relief. These changes to the Canada Student Loan Program reflect a concern that participation in post-secondary education might be falling nationally as cost becomes a critical barrier. Provinces have been asked to consider similar changes for their programs.

As a result of national public consultations on its Bursary Program in 2004, the Millennium Scholarship Foundation, in consultation with provinces and territories that agree to participate, is creating experimental projects directed at dependent students in their early years of study who are from lower-income families. An allocation of $200 million will be divided by province based on population, as reported in the 2001 Census. This Province is assessing the pilot projects in a number of other jurisdictions to determine the potential benefit to our students and will we negotiate an agreement with the Foundation accordingly. In Newfoundland and Labrador, $3.4 million will be made available for the initiative over four years.

We will

- **Increase provincial loan limits from $110 to $140 per week, consistent with the federal government increase of 27%.**
- **Ensure Debt Reduction Grants are applied against the new weekly provincial loan limit of $140.**
- **Reduce expected parental contributions to enhance access to the loan program for more low- to middle-income families.**
- **Improve debt management measures by providing a 5% increase in the income threshold to quality for interest relief.**

  These changes to the Student Loan Program are budgeted as follows:

  - **$0.5 Million for fiscal year 2005/06**
  - **$1.0 Million for fiscal year 2006/07**
  - **$1.7 Million for fiscal year 2007/08.**
- **Negotiate an agreement with the Canadian Millennium Scholarship Foundation to pilot a program to provide enhanced financial support for dependent students from low-income families.**

9. Strategies for Enhancing Governance

Although by national and international standards, our post-secondary education sector is small, it is sometimes fragmented and disconnected. The major players have adopted collaborative approaches on many issues in the past, but most pursue their own course within the larger system. If we are to engage the opportunities available to us and answer the challenges, today and in the coming years, this practice must be replaced with an integrative approach, where all parts of the educational system work closely together.

New operational alignments between Memorial University and College of the North Atlantic need to be established. Alignment is also required between and among the various components within these institutions, and with our K-12 education system.

As public institutions, these organizations have strong relationships with the Provincial Government. Memorial University is an autonomous organization but it relies on Government funding; College of the North Atlantic is more closely tied to Government, through its history, the nature of its programming and its strong rural presence, as well as through funding. In addition to strengthening linkages among the various components of the education system, any review of governance should consider greater coherence between the institutions and the strategic plans of Government for the Province. For the post-secondary system to respond to the Province's future education and economic development needs, an appropriate governance model is needed which supports further improvements in coordination and the sharing of best academic and service practices, while recognizing institutional autonomy and respecting the mandates of both institutions.

Mechanisms can be developed at the institutional governance level that support the strategic directions of both institutions. New approaches, such as appointing common individuals to serve on both governing bodies, can assist the institutions in sharing best practices and enhancing knowledge of the challenges and opportunities of both institutions. Individuals who serve as joint appointments to both governing bodies can themselves establish a structure to monitor and report on the best practices within each institution.

9.1. Council on Higher Education

In 1992, in an effort to improve collaboration, Government created a Council on Higher Education (CHE) through a Protocol Agreement. The Council is mandated to provide advice on province-wide policy and planning issues and to develop mechanisms to enhance co-ordination and transfer of credits among and across sectors of the public education system.

When the Council was first established, the Province's post-secondary education system consisted of five community colleges and a university. The model provided some level of co-ordination; however, when the structure was changed to a one-college, one-university system, the mandate of the Council was not reviewed. A recommendation from the Council's Committee on Articulation (ATAC) suggests a new approach should be pursued.

> **... it is difficult to see how the Council on Higher Education, as currently constituted, can play a strong role in resolving contentious issues between the institutions, unless government is prepared to take a much more active role than has historically been the case.**
>
> **- ATAC report on Applied Degrees**
> **and College-University Articulation**

As a result of the White Paper review process, opportunities have been identified to enhance the Council's role. This can be accomplished through legislation and through the institutional governance model, to complement and support the legislation governing both Memorial University and College of the North Atlantic.

Attention to governance is required to ensure that the necessary collaboration and joint initiatives can occur between Memorial University and the College. Such initiatives include facility sharing at the Ridge Road campus of the College and Memorial's Marine Institute campus, improving the transition of students from the K-12 system to post-secondary education, and responding to the changing demographics of high school graduates entering the post-secondary system.

In moving forward with a restructuring model, Government is committed to maintaining institutional autonomy and academic freedoms. However, based on the history of the Council on Higher Education since 1992, a new mechanism that will lead to improved coordination, cooperation and recognition of mutual inputs into a system of post-secondary education must be introduced.

9.2. Strategic Planning

Our public post-secondary institutions have advanced financial and operational reporting systems and the human and physical resources to capture, analyze and communicate information about the performance of our post-secondary system. Government's recent *Accountability and Transparency Act* and the Acts governing Memorial University and College of the North Atlantic require constant measuring and reporting on institutional performance.

Strategic planning frameworks for post-secondary education across Canada range from the collection of performance indicators, to an identification of performance-based outcomes directly tied to objectives in a strategic plan. Strategic plans are important for establishing goals and objectives which consider finances, clients, business processes, learning and growth. A recent document prepared for the Council of Ministers of Education in Canada suggests collecting "a balance of information on employees, operations, client satisfaction, response time, and quality in addition to traditional financial information."[38]

Within their legislative requirements, Memorial University and College of the North Atlantic have developed governance-level strategic plans for three-year periods, which include their vision and the objectives to be accomplished. These institutions also produce annual performance reports that summarize their strategic directions, and measure and report on their success in achieving their objectives. Key statistical documents and annual reports typically include summaries of funding, human resource profiles, student profiles, enrolments, programs offered and graduates by program. Thus, a significant amount of information is available to support province-wide strategic planning for public post-secondary institutions.

Comprehensive strategic planning for our full post-secondary system should clearly communicate societal expectations for post-secondary education: efficiency, high levels of performance, mobility and portability, accessibility, relevance and responsiveness, and application of research and scholarship.

We will

- **Amend the Acts governing Memorial University and College of the North Atlantic to require each institution to demonstrate greater connectedness with each other, stronger accountability to the public and their contribution to the social and economic development of the Province. This will include**
  - **three joint appointments to the University and College Boards,**
  - **a reconfigured Council on Higher Education recognized in legislation,**
  - **a process of monitoring and reporting to the Council by the jointly-appointed members.**
- **Expect Memorial and College of the North Atlantic to employ a system-wide approach to new program planning in areas of potential overlap or where cooperative and collaborative efforts may enhance design or delivery.**
- **Enter into three-year outcomes-based performance contracts with Memorial and the College that will include**
  - **financial performance measurement,**
  - **efficiencies for shared service delivery,**
  - **performance reporting on programs, research and administration,**
  - **an enhanced credit transfer system,**
  - **enhanced delivery of academic upgrading and other strategies to improve access for under-represented groups,**
  - **links to economic development from applied research and innovation,**
  - **links to regional diversification strategies of the Province.**

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[38] Council of Ministers of Education, Canada, *Quality Measurement in Postsecondary Education*, 2002.

10. Building on the Foundation

The White Paper consultation process and submissions confirm the vital importance of post-secondary education to the people of this Province. As a Government, we recognize that there are many challenges ahead. Because our public post-secondary system is inextricably linked to our economic growth and development, as well as to our cultural and social well-being, the plan we are putting forward is meant to be progressive and to anticipate needs over the next several years.

Given our one university and one college system, the fundamental issue that we have had to address in this White Paper is how maximum quality, accessibility, accountability, affordability and equity can be assured with limited resources. Clearly, the future success of Memorial University and College of the North Atlantic will depend on innovative collaboration and partnerships between private and public agencies and organizations. It will also require flexibility and responsiveness to balance the unique needs of different students and different regions, and a new culture of efficiency for managing and financing programs, services and special initiatives.

The implementation of the action statements arising from this White Paper will require a multi-year approach. It will also require the support and involvement of all post-secondary partners, including Memorial University, College of the North Atlantic, and the Departments of Education, and Health and Community Services.

We believe we have made the important decisions necessary to secure a good foundation for successful social and economic development and prosperity, now and into the future. Both Memorial University and College of the North Atlantic are central to the health and well-being of our people and our economy. These institutions and our graduates want to continue to be among the best in Canada and the world, and we will support that aspiration.

We are determined to advance our vision of a one university and one college system that will inspire and mobilize the imagination, creativity, skills and talents of all our people now and in generations to come.

Appendix: Summary of Strategies

Strategies for Strengthening the Base

We will

Adult Learners

1. Advance a provincial Adult Learning Campaign to recognize the critical need to promote and raise the profile of adult learning.

Aboriginal Education

2. a. Provide funding budgeted at $250,000 to assess the facility requirements at College of the North Atlantic in Happy Valley-Goose Bay to accommodate the growth in Aboriginal enrolment.

   b. Persist in securing access to the Post-Secondary Student Support Program and other federal Aboriginal programs for members of the Federation of Newfoundland Indians and the Labrador Metis Nation.

Women's Participation

3. a. Call on our institutions to
   - ensure recruitment strategies support the participation of women in engineering, applied science, technology and skilled trades,
   - identify more scholarship opportunities for women in engineering, applied science, technology and skilled trades programs,
   - improve women's representation in decision-making positions.

   b. Work with the federal government, business and industry to enhance apprenticeship employment opportunities for women.

Rural Participation and Distance Delivery

4. Provide funding to College of the North Atlantic and Memorial University to expand distance education programming to rural communities and to enhance delivery of workplace-based training for small and medium sized enterprises, budgeted at
   - $0.5 Million for fiscal year 2005/06
   - $0.5 Million for fiscal year 2006/07
   - $0.5 Million for fiscal year 2007/08.

Adult Academic Upgrading

5. Develop the ABE Level I program for delivery through a combination of part-time instruction in a class setting and web-based internet delivery.

6. Require College of the North Atlantic to allocate 5% of its provincial operating grant to transitional and academic upgrading so that these programs are more readily available at the College's campuses.

7. Pilot a 15-week structured educational program for GED certification at College of the North Atlantic with the intent of expanding it to all campuses, as demand warrants.

Apprenticeship Training

8. a. Review the policy that requires one apprentice to work with one journeyperson.

   b. Work with the federal government, business and industry to identify the best strategies for increasing apprentices' employment opportunities, including piloting a wage-subsidy program with priority given to females, to support Small and Medium Enterprises in their hiring of apprentices.

   c. Introduce a policy for Government to increase its hiring of apprentices.

Strategies for Improving System Capacity

We will

Memorial University

9. a. Request that the Board of Regents review the administrative and governance structure for Sir Wilfred Grenfell College to more appropriately reflect its maturing role within the University.

   b. Enhance Sir Wilfred Grenfell's ability to offer new programming by increasing Memorial's budget as follows:

   - $1.0 Million for fiscal year 2005/06
   - $1.0 Million for fiscal year 2006/07
   - $1.0 Million for fiscal year 2007/08.

   c. Request that a review of the position of the Marine Institute within the context of our public post-secondary strategic plan be undertaken in consultation with Memorial University and College of the North Atlantic. The focus is to build on the international reputation of the Institute as a centre of excellence in marine and ocean technology and training.

College of the North Atlantic

10. Implement a transition plan to align College of the North Atlantic with the Province's social and economic agenda, linking the College's geographic resources and infrastructure to socioeconomic initiatives. This will include linkages to the Province's Innovation Strategy and Comprehensive Regional Diversification Strategy.

Education and Training for Health Professionals

11. a. Request Memorial University to assess the feasibility of establishing a Faculty of Health Sciences to include the Faculty of Medicine and the Schools of Social Work, Pharmacy and Nursing, with appropriate stakeholders. The appropriate placement of associated funding will be part of the discussions between Memorial University and the Departments of Health and Community Services and Education.

b. Direct the Departments of Education and Health and Community Services, in conjunction with the Schools of Nursing and appropriate stakeholders, to discuss implementing a consolidated model that provides for the administration of nursing education, including continuing education and other programs such as the Practical Nursing program and the Nurse Practitioner program within Memorial University. The appropriate placement of associated funding will be part of the discussions between the Schools of Nursing and the Departments of Health and Community Services and Education, and Memorial University.

c. Direct the Departments of Education and Health and Community Services, in conjunction with the appropriate stakeholders, to provide for the delivery of paramedicine training at College of the North Atlantic.

Distance Education

12. Establish a committee consisting of the major players in distance delivery to identify opportunities for

- stronger partnerships,
- more sharing of expertise and resources, and
- a more integrated educational system.

Specific areas to be addressed include connectivity, software and license purchasing, curriculum development and equipment use.

Rural and Economic Development

13. Require our post-secondary institutions to work with industry to explore the creation of facilities based on the Genesis Centre concept in regions throughout the Province, with immediate attention to Corner Brook.

Strategies for Helping Students

We will

Student Services

14. a. Establish a system-wide public Post-Secondary Student Services Advisory Committee to enhance cooperation and improve services for students.

    b. Improve the timely transmission of student data from one institution to another and to the Department of Education to enhance student services.

15. Increase collaboration in student recruitment and advising activities between Memorial University and College of the North Atlantic.

16. Enhance current levels of career employment services for post-secondary students through increased co-operation between Memorial University and College of the North Atlantic.

Disability Services

17. Establish a collaborative service and support model which partners public post-secondary institutions with other agencies involved in supporting students with disabilities.

Student Housing

18. Request that our institutions explore opportunities for collaboration to enhance access to student housing, including possibilities for common residences.

Library Services

19. Establish a Working Group of the Department of Education, Memorial University, College of the North Atlantic and the Public Libraries Information and Resource Board to identify opportunities to enhance use of the Queen Elizabeth II Library at Memorial by other communities and library structures within the Province.

Strategies for Maintaining Stable Funding

We will

Government's Investment

20. Provide Memorial University and College of the North Atlantic with sufficient funds to maintain a tuition freeze for a three-year period. In lieu of tuition increases, Government will provide increased funds to the institutions, budgeted as follows:
    - $4.3 Million for fiscal year 2005/06
    - $8.9 Million for fiscal year 2006/07
    - $12.4 Million for fiscal year 2007/08.

21. Provide Memorial University with sufficient revenue to address operating needs through an increase in its grant-in-aid, budgeted as follows:
    - $3.3 Million for fiscal year 2005/06
    - $7.2 Million for fiscal year 2006/07
    - $7.2 Million for fiscal year 2007/08.

22. a. Provide College of the North Atlantic with sufficient revenue to address operating needs through an increase in its grant-in-aid, budgeted as follows:
    - $1.6 Million for fiscal year 2005/06
    - $2.1 Million for fiscal year 2006/07
    - $2.8 Million for fiscal year 2007/08.

    b. Provide funding to College of the North Atlantic to upgrade equipment, budgeted as follows:
    - $1.0 Million for fiscal year 2005/06
    - $1.0 Million for fiscal year 2006/07
    - $1.0 Million for fiscal year 2007/08.

Infrastructure Requirements

23. a. Support an infrastructure fundraising campaign for Memorial University and College of the North Atlantic by matching dollar for dollar private-sector contributions, budgeted as follows:
    - $3.0 Million for fiscal year 2005/06
    - $3.0 Million for fiscal year 2006/07
    - $3.0 Million for fiscal year 2007/08.

    b. Ensure the physical space available for College of the North Atlantic's Labrador West campus is suited to the programming needs of the community and its employers.

    c. Encourage federal investment in post-secondary infrastructure renewal to support our economic growth, particularly in knowledge-based industries.

Research Capacity

24. a. Support the Industrial Research and Innovation Fund by providing matching and start-up funds that will attract further federal investments in research at Memorial University and College of the North Atlantic, budgeted as follows:

- $5.0 Million for fiscal year 2005/06
- $7.5 Million for fiscal year 2006/07
- $10.0 Million for fiscal year 2007/08.

These funds will help position the University and College to play a key role in supporting the Province's Innovations Strategy.

b. Pursue additional federal contributions so that the indirect costs associated with research supported by federal granting councils can be adequately funded.

Student Financial Assistance

25. a. Increase provincial loan limits from $110 to $140 per week, consistent with the federal government increase of 27%.

b. Ensure Debt Reduction Grants are applied against the new weekly provincial loan limit of $140.

c. Reduce expected parental contributions to enhance access to the loan program for more low- to middle-income families.

d. Improve debt management measures by providing a 5% increase in the income threshold to quality for interest relief.

These changes to the Student Loan Program are budgeted as follows:

- $0.5 Million for fiscal year 2005/06
- $1.0 Million for fiscal year 2006/07
- $1.7 Million for fiscal year 2007/08.

e. Negotiate an agreement with the Canadian Millennium Scholarship Foundation to pilot a program to provide enhanced financial support for dependent students from low-income families.

Strategies for Enhancing Governance

We Will

Strategic Planning

26. Amend the Acts governing Memorial University and College of the North Atlantic to require each institution to demonstrate greater connectedness with each other, stronger accountability to the public and their contribution to the social and economic development of the Province. This will include
    - three joint appointments to the University and College Boards,
    - a reconfigured Council on Higher Education recognized in legislation,
    - a process of monitoring and reporting to the Council by the jointly-appointed members.

27. Expect Memorial and College of the North Atlantic to employ a system-wide approach to new program planning in areas of potential overlap or where cooperative and collaborative efforts may enhance design or delivery.

28. Enter into three-year outcomes-based performance contracts with Memorial and the College that will include
    - financial performance measurement,
    - efficiencies for shared service delivery,
    - performance reporting on programs, research and administration,
    - an enhanced credit transfer system,
    - enhanced delivery of academic upgrading and other strategies to improve access for under-represented groups,
    - links to economic development from applied research and innovation,
    - links to regional diversification strategies of the Province.

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NEWFOUNDLAND AND LABRADOR
Department of Education